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ABSTRACT In this report the authors have presented an overview of the most significant findings principally concerned with long- and short-term higher educational trends and developments, and their implications for the years ahead. A major portion of the data consisted of long-term historical analyses of educational attainment in the United States, principally from Census sources, and of the historical evolution of higher educational institutions. Shorter term analyses from the late thirties to the near present, derived from a number of independent surveys, plus OE statistics and Census Bureau Current Population Surveys, permitted the relation of student and college characteristics to college plans and enrollments. Considered as a totality, long- and short-term trends plus the current higher educational realities form the base for future predictions. These materials also specify the significant educational "problem areas" which are emerging, and which may be presumed to mount in relative significance as time passes. The authors will devote a considerable part of this summary to identifying these "problems." (Author)

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BUREAU OF APPLIED SOCIAL RESEARCH

AMERICAN HIGHER EDUCATION IN TRANSITION

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AA000365

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Summary Report

Contract No. OE 6-10-039

AMERICAN HIGHER EDUCATION IN TRANSITION

. . . a review of long- and short-term historical trends, the current situation, and future probabilities and their major determinants.

A. J. Jaffe

Walter Adams

Bureau of Applied Social Research

Columbia University

New York, N.Y.

April 1969

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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PREFACE

It is customary in this country to think of higher education as a former privilege in process of becoming an inalienable right. It is generally assumed as well that as many young persons as possible should go to college, and that the most relevant issues simply relate to attaining this goal. We would like to preface this report on American education--chiefly higher education--with a few remarks questioning the total validity of such assumptions. These remarks are made from the point of view of many of the potential college entrants, rather than parents and educators--since these students are seldom consulted with regard to educational policies and programs. Throughout the balance of this report we shall not question the majority position, but simply try to describe and assess the various factors influencing post-high school plans and eventuations.

In the Fall, 1968, issue of the Columbia Forum Margaret Mead observed as follows: "Higher education is no longer a privilege or even a right. It is an arduous requirement laid upon young people by the standards of employment in the society." As is the case for all strong global statements, Dr. Mead's requires considerable qualification. Nevertheless, we do not question its essential validity. The research upon which we report in considerable measure documents Dr. Mead's remarks.

This research traced the long historical process by which college attendance has become the most critical educational "rite of passage" of the late 1960s. It also attempted to identify and describe the many students for whom this "rite of passage" appears to be particularly difficult or inaccessible--the students for whom college truly represents "an arduous requirement." Many such students, according to our findings, simply do not desire college. In point of fact, over a quarter of the 4 in 10 of 1965 high school seniors who expressed no interest in college nevertheless planned to attend--presumably with their future occupational and financial welfare in mind. Nearly half of racial minority seniors did not desire college, but nearly half of such seniors planned to enter.

We are not convinced that better opportunities in later life should be so strongly (and increasingly strongly) dependent upon college credentials. In the less rigid society which we would favor, college-age youth would not be penalized for spending these years in a wide variety of ways, commensurate with varying interests and abilities. Nevertheless, the relative advantage bestowed by the college credential is clear. Consequently, in this report we assume that in simple self-interest as many high school graduates as possible should enter college. We also assume that existing barriers to college entrance (many of which are historically enduring ones) must be removed. It is a moot question just how many of the rising tide of college entrants will actually need extended schooling for performing the work they are likely to do. This is a question which our report does not attempt to answer.

We have written the report, then, in terms of steadily mounting educational requirements which society stipulates for better employment. We tacitly accept these requirements--principally because, like Everest, they are there.

A. J. Jaffe

Walter Adams

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Amy Davey for her able editorial services in preparing this summary of findings.

The presentation of the findings and the conclusions reached, however, are exclusively the responsibility of the authors.

TABLE OF CONTENTS

Page

PREFACE 1

ACKNOWLEDGEMENTS 3

Section I Introductory Remarks 8

Section II Long-Term Historical Trends 15

Section III Short-Term Historical Trends and Their Implications

- Part I - High School"Dropout" and College Entrance 20
- Part II - The "Over-Age" Student 24

Section IV Historical Changes in the Educational Establishment 30

Section V Very Recent Trends in College Attendance 38

Section VI Financial Characteristics of College Planners and Entrants 41

Section VII Sources of College Financing 48

Section VIII Non-Financial Characteristics of College Planners:

- Part I - Aspiration and Motivation 52
- Part II - Less Understood Determinants of College Plans 69
- Part III - Further Regional Considerations 92
- Part IV - The Senior's School Experience 96

Section IX Entrants to 2- and 4-year Colleges and Non-Entrants to College 98

Section X The Purpose of Limited Post-High School Education 102

Page

Section XI Family Structure, Socioeconomic Class, and College Attendance--the Intergenerational 2-year college Tradition 107

Section XII Occupational Expectations and Reality 116

Section XIII Summary of Findings 127

Section XIV Implications of Findings for Future Research 133

Appendix A Principal Data Sources for This Report:

- a. Sources of historical data 137
- b. Sources of more recent data 138

Appendix B Listing of articles and tabulations, published and unpublished, deriving from the authors' research on education in the United States--including data sources for the various materials: 141

- A. Summaries 142
- B. Historical Trend Analyses 145
- C. The Two-Year Public College 146
- D. Education and Technology 147
- E. Negro Higher Education 148
- F. Determinants of Post-High School Behavior 149
- G. Financing College 151
- H. Additional Tabulation Series 152
- I. Family Composition 153

Appendix C Detailed Statistical Tables:

- Introductory Remarks 154
- Part I - Decennial Census and Current Population Survey Historical Age Cohort Tabulations of Trends in Educational Attainment 158

Page

Appendix C (contd)

Part II - Trends, 1939-1965, in Post-High School Plans of Students 169

Part III - Characteristics of Students at 2- and 4-year Colleges 175

Part IV - College Financing - Fall 1966 and Early 1967 College Entrants 183

Part V - "Coleman Study" Data - Non-Financial Variables Associated with Post-High School Plans of 1965-66 High School Seniors 187

The principal "Coleman Study" variables appear in the following order:

a. Extent of post-high school education desired by high school senior. 188

b. Mother's post-high school desires for senior. 190

c. Post-high school advice offered student by guidance counselor or teacher 194

d. The senior's high school curriculum. 201

e. The senior's academic and social self-image relative to classmates. 204

f. The senior's expected occupation following completion of education 216

The control variables a) the senior's objectively tested level of verbal ability, and b) the educational attainment of the senior's mother--as well as the dependent variable, the senior's post-high school plans--appear throughout the "Coleman Study" tabulations.

Page

Appendix D Methodology:

a. The Long-Term Historical Data 228

b. The Shorter-Term Historical Data 231

c. The Office of Education "Coleman Study" Data 232

SECTION I

Introductory Remarks

In the following pages we present an "overview" of the most significant findings of Office of Education Project No. OE6-10-039, principally concerned with long- and short-term higher educational trends and developments, and their implications for the years ahead.

Project findings in particular areas, and for specific bodies of data, have already been submitted to the Office of Education in the course of the past several years, including detailed tabulations and citations of information sources. Such interim reports and articles, completed as various groups of tabulations became available for analysis, have not as yet been integrated into a single project summary. In the following pages such a summary is attempted.

A few supplementary tabulations of the study data are still in process, and these tabulations will be added to the project file upon completion. These tabulations explore the relationships between post-high school advice offered to high school seniors by teachers and guidance counselors and the post-high school aspirations of parents for the seniors, as well as the relationship between guidance advice to the senior and the senior's estimate of his own brightness relative to his classmates. These variables were found to be closely associated with the post-high school plans of seniors, one of the central concerns of our study.

Furthermore, in the course of the next few years, data from Office of Education Project No. OEC-8-080856-4651 (010) will supplement some of the findings in the present study. These data will represent yearly follow-ups of the post-high school behavior of 1965-66 high school seniors interviewed by the Census Bureau in Fall 1965 to determine their post-high school plans. In the present summary we report upon the first follow-up of these seniors following high school graduation.

In essence, our study sought to tap as many major bodies of information as possible which would help to determine the probable course of higher education in this country over the next several decades. Since developments in higher education do not occur in isolation from developments at the primary and secondary levels, we necessarily considered the earlier years of schooling in considerable detail. But it is the college experience that principally concerns us, as continuing escalation in educational attainment transforms this experience into the most critical educational "rite of passage" for American youth, one in which roughly four in ten of very recent age cohorts participated.

A major portion of our data consisted of long-term historical analyses of educational attainment in the United States, principally from Census sources, and of the historical evolution of higher educational institutions. Shorter term analyses from the late thirties to the near present,derived from a number of independent surveys, plus OE statistics and Census Bureau Current Population Surveys, permitted us to relate student and college characteristics to college plans and enrollments. Considered as a totality, long- and short-term trends plus the current higher educational realities form the base for future predictions. These materials also specify the significant educational "problem areas" which are emerging, and which may be presumed to mount in relative significance as time passes. We will devote a considerable part of this summary to identifying these "problems". (AUTHOR)

We have made no attempt to develop formal projections for college enrollment or educational attainment. Virtually all such projections made in the post-World War II years have been correct in anticipating rising enrollments and rising levels of attainment, but have underestimated the size and rate of such changes because they have not adequately taken into consideration the growth of the 2-year public colleges, and have excluded a number of variables which appear to be strongly associated with recent and prospective higher educational developments. In considerable measure, we feel, the findings we present in this summary isolate and specify several of these significant but neglected predictive variables. The research hopefully has defined the base from which somewhat more realistic projections might be derived. If the point was ever in doubt, our findings remove all doubt--college entrance rates, and changes in these rates, depend upon a large number of intricately interlocked student and institutional variables. Some of these variables, such as student ability and family finances, have been relevant (though the degree of relevance has changed) for as far in the past as there is information available. Others, such as the effect of professional guidance counseling and availability of 2-year colleges, are of more recent origin. We shall attempt to distinguish the newer from the more traditional variables, and to roughly assess the relative significance of each type for the near future.

In general, then, this summary might best be viewed as an attempt to isolate and describe those factors and trends which would be essential elements of a computer simulation model, designed to chart higher educational change in the years immediately ahead.

We offer a few remarks about the arrangement and organization of the report. We have included a statistical appendix, Appendix C, consisting of basic and relatively detailed tables. These are the tables which support what we feel to be the most significant findings of the research, and for convenience are grouped in one place, roughly in the order of the sections which pertain to them. These appendix tables chiefly relate to Sections II, VI, VII, VIII-Part II, and IX of the report, and in these sections we consequently present only a minimum of text statistics. In the balance of the text we present a larger number of illustrative tables.

For the sake of parsimony, we have excluded formal footnotes and a formal bibliography, and simply refer the reader to Appendix A, which lists the principal data sources we used.

Appendix B lists, and briefly describes, the various articles, books, and special reports which relate to the findings discussed in this summary. Fuller discussions and more detailed tabulations may be found in these materials.

The overall sequence of the sections roughly follows a simple pattern:

1. Historical trends.
2. The current eventuation of the historical trends.
3. Future probabilities and their determinants.
4. Summary of findings and implications for future research.

Appendix D, Methodology, is a brief review of how we obtained, organized,and analyzed the various bodies of data. More detailed technical information is to be found in the materials listed in Appendix B.

Finally, to preclude repeated text and table footnotes, a set of definitions of basic concepts and categories used throughout the report follows:

1. Racial minority students (as used in the Coleman Study data)--Negro Americans, Puerto Rican Americans, Indian Americans, and Mexican Americans.
2. Racial majority students (as used in the Coleman Study data)--White Americans and Oriental Americans. Both the published Coleman report and recent census findings concur that Oriental Americans closely resemble white Americans, but differ greatly from other non-whites, for major educational variables.
3. Non-white students (as presented in Census Bureau data)--include Oriental Americans.
4. Educational attainment (as presented in both Coleman and Census Bureau data)--signifies years of schooling completed, rather than highest grade entered. Office of Education retention rate data, on the other hand, present grade in which enrolled.
5. Verbal ability (as presented in the Coleman Study data)--the performance of the 12th graders in the national sample on a test consisting of sixty verbal items from the Educational Testing Service's School and College Ability Test. This test is very similar to the verbal portion of the College Board's Scholastic Aptitude Test. The test is explicitly designed to

measure the effects of the total learning experience of the student, plus innate aptitude, rather than the effects of formal schooling per se. It is "culture-bound" by deliberate design. Since "verbal ability" is a key variable in this report, we will discuss our tabulation categories,"very low," "low to average," and "above average." These three categories represent three arbitrary divisions of the 54 scale scores. They do not divide the sample, or any subsamples, into equal thirds. Since the scoring distributions for majority and minority students differ greatly, and since we wished to compare the two groups, the three verbal ability categories represent a compromise designed to yield sufficient numbers of cases in each category, for each race group, for meaningful statistical analysis.

The verbal ability differences by race are basic data in this analysis, and we present them here accordingly:

	Race			
	Majority Seniors		Minority Seniors	
Verbal ability	No.	%	No.	%
Very low	5,560	9	14,222	49
Low to average	28,125	45	12,109	41
Above average	28,390	46	3,052	10
All levels	62,075	100	29,383	100

The category designations relate to the majority distribution, since we assume that to an increasing extent the majority group will represent the "competition" for minority students as school integration progresses.

One way of viewing the racial distributions would be to assume that ability should be the primary criterion of who should enter college--and that the long-term historical rate of entrance, roughly half of high school graduates (somewhat more or less, depending on race and sex), should at least continue in the future. Majority college entrants, then, would consist of the "above average" students, whereas minority entrants would consist of "above average" plus "low to average" students.

6. High school curriculum (as presented in both Coleman and Census data)--represents a simple dichotomy, "college preparatory" and "all other," since the differences noted between other curricula ("general," "business," "technical," "vocational," etc.) were statistically insignificant.

SECTION II

Long-Term Historical Trends

Let us make two very different statements about education in the United States over the years since the latter 19th century.

First, ever larger proportions of increasingly large cohorts of youth have attended school for increasingly extended numbers of years. This has been the case for boys and for girls, for racial majority and minority youth, and for youth of all socioeconomic classes.

Second, racial minority youth and lower socioeconomic majority youth have consistently lagged one to two generations behind in the overall escalation in attainment. Consequently, at any given point in time few of the members of these less fortunate population groups have enjoyed the modal educational experience of relatively affluent majority youth. Such relative deprivation has adversely affected most of the one in eight of all youth belonging to racial minorities. It has adversely affected a far smaller proportion of the seven in eight of all youth in the white majority. Nevertheless, given the relatively large size of the white majority, the numerical total of this population who have been educationally deprived down the years has been three or four times that of minority youth.

Relative educational deprivation has been an abiding problem for most minority youth, but for the nation as a whole the problem of such deprivation has been located principally in the racial majority population. (See Appendix C for detailed tables.)

II.2

Race, modal level of educational attainment, and per cent above and below modal level for white youth

Approx yr of high school graduation	White			Non-white			ratio % white to % non-white below white modal level	ratio % non-white to % white above white modal level
	Modal level	% above white mode	% below white mode	Modal level	% above white mode	% below white mode		
	years	%	%	years	%	%	ratio	ratio
1896 & earlier	7-8	21	37	0-6	5	86	.43	.24
1904-05	7-8	34	27	0-6	15	64	.42	.44
1914-15	7-8	44	18	0-6	18	61	.30	.41
1924-25	7-8	59	10	0-6	27	46	.22	.46
1933	12	15	51	0-6	7	80	.64	.47
1944-45	12	30	37	9-11	12	64	.58	.40
1952	12	30	30	12	17	47	.64	.57
1957	12	30	25	12	17	44	.57	.57
1962	12	35	21	12	18	44	.48	.51

See Statistical Appendix C for sources, plus detailed tabulations of long-term historical trends.

The long-term trends we have just summarized derive chiefly from age cohort analyses of educational attainment from Decennial Censuses and 1967 and earlier Current Population Reports. These data permit us to determine that for eighteen and nineteen year olds in 1967, representing persons of grammar school graduation age around 1961-1962, just under eighteen in twenty non-whites, and just over nineteen in twenty whites, had completed the eighth grade or proceeded further. If we turn to Office of Education educational retention rate data for the early and mid-1960s it becomes clear that these proportions have substantially risen in the very recent past. Today very nearly all youth physically and mentally able to do so complete grammar school, and the significance of historical trends at levels below high school is in consequence simply historical. The retention rate tables also tell us that for youth of high school graduation age in 1967 not only had about ninety-eight in a hundred completed the 8th grade, but of these grammar school graduates about 99 in 100 entered high school. It is only at the level of reaching the 12th grade and graduating from high school that drop-out, representing respectively about 21 and 28 per cent of the 1967 age cohort, becomes significantly large, and long-term trends in consequence become empirically relevant today.

Given the small number of cases in Current Population samples, especially at higher educational levels in earlier years, we perforce turn to 1960 Decennial Census age-cohort analysis to trace patterns in proportions of white and non-white high school entrants graduating the

12th grade, in proportions of graduates entering college, and in proportions of entrants graduating college down the years. We can trace these patterns back to about 1880, but delay in completing an education only permits us to report on high school graduation for the age cohort of graduation age around 1955, and on college entrance and graduation for persons of high school graduation age around 1950. The 1970 Decennial Census will permit us to extend the analysis by a decade, but at the present time we turn to several recent surveys of post-high school plans and eventuations for high school seniors (upon which we shall presently report) to bring the trend data (somewhat inferentially) up-to-date.

For white boys and girls alike the proportion of high school entrants graduating high school gradually rose from slightly over six in ten in the early 1900s to about eight in ten around the mid-1950s. For non-white boys and girls, however, there was no such rise. In the early years and around 1955 alike just under six in ten high school entrants graduated. For white youth a simple linear extension of the past trends should place virtually all of the age cohort in a position to enter college, but for non-white youth continuation of past trends (or lack of trends) would place only about half of the age cohort in this position. In the past, increases in proportions of non-whites graduating from high school have derived almost entirely from increases in proportions entering high school. By the late 1950s however, the overwhelming majority of non-white children were entering high school, and further increases in proportions of age cohorts graduating perforce depended on changes in the high school retention rates.

If we turn to the question of trends in college entrance and in college graduation, we reach the following conclusions: 1) In spite of considerable fluctuation in entrance and graduation caused by wars and depressions, proportions of high school graduates entering college, and proportions of the entrants obtaining baccaulaureats, were quite stable throughout the entire historical span from the late 19th century to around 1950. 2) Roughly half of male whites who completed high school entered college, both around 1880 and around 1950, and at both dates about half the college entrants graduated. 3) For the remaining three sex-race groups there appears to have been comparable stability in college entrance and graduation if we discount the temporary effects of the Great Depression and World War II. For all three groups proportions entering and graduating have fluctuated around the forty per cent figure with no clear trend toward long-term increase or decrease. 4) The long-term rise in proportions of all four sex-race groups entering and graduating college have depended (at least until the 1950s) upon increasing proportions graduating from high school. (See Appendix C for detailed tables.)

SECTION III

Short-Term Historical Trends and Their Implications

Part I

High School "Dropout" and College Entrance

Our long-term 1960 Decennial Census age cohort analysis of trends in educational attainment by race terminates in the early 1950s. As we have pointed out, Current Population data offer too few cases for statistical stability, especially for minority groups and the highly educated. Nevertheless, if we refrain from citing exact percentages, but limit ourselves to very rough overall trends over a considerable period of time, we believe that the Current Population data are sufficiently reliable so that we can bring the analysis up to the early 1960s, reporting on persons who are of high school graduation age in the mid-1930s, the mid-1940s, the early and late 1950s, and the early 1960s. What appears to have occurred in the educational attainment of whites and non-whites is as follows:

Proportion of whites and non-whites in recent years who completed at least the 8th, 9-11th, and 12th grades, and the proportion who completed at least a year of college

Approximate year of high school graduation	8th			9-11th			12th			13th		
	W	NW	Difference W vs NW	W	NW	Difference W vs NW	W	NW	Difference W vs NW	W	NW	Difference W vs NW
	%	%	%	%	%	%	%	%	%	%	%	%
1935	89	61	28	75	46	29	55	26	29	19	9	10
1945	92	76	16	83	63	20	64	37	27	24	12	12
1952	94	86	8	88	79	9	70	53	17	27	17	10
1957	96	91	5	91	83	8	75	56	19	30	17	13
1962	97	93	4	93	86	7	79	56	23	35	18	17

1. For white children there were steady increases in proportions graduating high school throughout the entire span of years from the mid-1930s to the early 1960s. This rise appears to have reflected increasing proportions entering high school, and increasing proportions of entrants completing high school, in about equal measure. By the early 1960s around 8 in 10 white youth were completing high school and about 9 in 20 of these graduates, the classic proportion (somewhat more of the boys, and fewer of the girls), were going on to college.

2. For non-whites the pattern differs significantly. Between the mid-1930s, when under five in ten reached high school, and the early 1950s, when about eight in ten did so, proportions graduating high school rose from about a quarter to over half of the age cohort. Since the early 1950s the rise in high school entrants has been very slight, since the great majority were already entering. Unlike the white children, no increase in proportions of entrants graduating occurred, and consequently there was hardly any change from the early 1950's proportion of the age group graduating high school (a bit over half of the age cohort). Proportions of non-white high school graduates entering college remained constant throughout the thirty-year span, as was the case for white graduates.

3. The net effect of the trends just described appears to have been that though about twice as large a proportion of white as non-white age cohorts entered college both at the earliest and most recent dates, the percentage gap in attendance between the two racial groups has

nearly doubled. This widening of the gap took place entirely during the decade of the early 1950s to early 1960s, concurrent with the slow-down in the increase in high school entrance for non-white children. Around 1935 just under one in ten non-white children entered college, as compared with just under two in ten white ones. Around 1963 the corresponding proportions were just under two in ten and just under four in ten. Though the non-white to white ratio is unchanged, the percentage gap has nearly doubled, and it is the percentage gap that best measures the size of the population adversely affected.

We have no precise information which explains the differing trends in high school completion for whites and non-whites, but we strongly suspect, as the previous table suggests, that the problem for non-whites lies principally in successful completion of the 12th grade. In point of fact,for all youth drop-out in the senior year of high school has become an increasingly large proportion of all high school drop-out. Around 1951-1952 12th grade drop-outs represented about one in eight of all high school drop-outs. Around 1966-67 they represented about one in three. Measured another way, at the earlier date about one in thirty-nine of fifth grade entrants entered the 12th grade but failed to graduate. At the later date, the equivalent figures are one in sixteen.

What we infer has occurred is as follows: As proportions entering high school have risen to the point where they include the overwhelming majority of the age group, perforce the entrants include increasing proportions of less able students. Given the extreme and increasing desirability of a high school diploma, students, parents, and educators alike make every possible effort to extend schooling to the 12th grade. But promotion through high school is a different matter than qualifying for a high school diploma. Schools cannot grant diplomas to the increasing proportions of less able 12th graders without diluting the meaning of the diploma. This should especially affect the generally less able non-white students. who, moreover, have the additional disadvantage of being older (see Part II of this section) and less affluent, on the average, than white students. Consequently, they must feel particularly strong economic pressures to go to work. Undoubtedly similar problems at the 12th grade level present themselves to underachieving lower socioeconomic white students.

Though the small number of cases preclude clear-cut findings, the early 1967 Census Bureau follow-up of 1965-66 high school seniors appears to support our inferences. Lower socioeconomic students in general, and non-white ones in particular, were especially likely to enter, but fail to graduate from, the 12th grade. Over one in eight non-white 12th graders,as compared to about one in fourteen white ones, failed to graduate.

If the recent increases in 12th grade drop-out should continue, as more of the 20-25% who currently quit earlier shall become seniors (presumably a particularly unpromising group of students academically), we estimate that 12th grade drop-out may include as much as 12 to 15% of the total age cohort within a few years. Inability to qualify for the high school diploma will represent a major academic obstacle to college entrance at a time when perhaps half or slightly more of the age cohort will enter college. We repeat that the evidence suggests that the problem will center about lower socioeconomic and racial minority students.

Part II

The "Over-Age" Student

Our concern with the relatively small group of students who reach the 12th grade, but fail to graduate, derives in part from the over-representation of generally disadvantaged non-whites in this group, and in part from expected increases in the size of this group in the years ahead.

For the group we shall now consider, the over-age student, our concern is similarly based. Over-age students, as we define them, are ones beyond the modal age for the grade in which they are enrolled. For high school seniors the modal age is seventeen, and over-age students are eighteen or older. About 4 in 20 of 1965-66 high school seniors were over-age, according to the Census Bureau study (see table below):

All seniors

Post-high school eventuations for 1965-66 high school seniors, as of February, 1967.

Age of October,1965, high school senior	Not high school graduate	High school graduate, but no college	College entrant			All Eventuations
			2-year college	4-year college	All colleges	
	%	%	%	%	%	%
17 years or less	4	46	16	34	50	100
18 years or more	21	61	11	7	18	100
All ages	8	49	15	28	43	100
17 years or less	47	75	86	95	92	80
18 years or more	53	25	14	5	8	20
All ages	100	100	100	100	100	100

We have reason to believe, as we shall see later, that this proportion is likely to rise to around five in twenty within a few years. Moreover, the Coleman data (representing sufficient numbers of cases for racial comparisons) indicate that about twice the proportion of racial minority as of majority seniors, 1965, were over-age. This was especially the case for minority boys, about 6 in 20 of whom were over-age. Between 3 and 4 in 20 of majority boys were over-age.

It is also true that 12th grade entrants who fail to graduate are very likely to be over-age students. (See previous table.) Though over-age students in 1965 represented only a fifth of all high school seniors, over half the seniors who failed to graduate were over-age. Over-age students are also slightly over-represented among the seniors who graduated from high school but failed to enter college. The net effect is that they are greatly under-represented in the college-entrants population--and especially for 4-year college entrants, only 1 in 20 of whom were over-age.

Viewed in another way, we may say that over-age seniors are over five times as likely as seniors at or below the modal age to fail to obtain high school diplomas. If they do graduate, over-age students are about a third again as likely to fail to enter college. If they do enter college nearly two-thirds enter 2-year colleges, whereas only one-third of the younger entrants do so. Younger students are about five times as likely as over-age ones to enter 4-year colleges.

Quite clearly, for whatever reasons, being over-age is strongly related to failure to complete the 12th grade, failure to enter college, and failure to enter a 4-year college. It is relevant, then, to attempt to draw a profile of the over-age high school senior. We present the following table, deriving from the Coleman data, for racial minority girls. The essential findings for these seniors pertain to all other sex-race groups, though proportions somewhat differ from group to group:

Minority girls

Verbal ability of senior

Age of October, 1965, high school senior	Very low* %	Low to average* %	Above average* %	All levels %
17 years or less	45	44	11	100
18 years or more	65	31	4	100
All ages	49	42	9	100

*Relative to the verbal ability distribution of racial majority seniors.

Educational attainment of senior's mother

Age of October, 1965, high school senior	8 grades or less %	9-11 grades %	12 grades %	13 grades or more %	All levels %
17 years or less	24	37	28	11	100
18 years or more	37	39	18	6	100
All ages	26	38	26	10	100

Post-high school plans of senior

Age of October, 1965, high school senior	No college %	College probably %	College definitely %	All plans %
17 years or less	28	34	38	100
18 years or more	45	36	19	100
All ages	32	34	34	100

Very simply, over-age seniors tend to be low ability ones, ones with poorly educated mothers, and seniors who do not plan on college. If they do plan on college, about two-thirds have tentative plans, whereas this is the case for under half the seniors at or below the modal age. The characteristics of the over-age seniors are what we might expect from their academic performance according to the Census Bureau February, 1967, follow-up.

We emphasize that the over-age high school senior, if he somehow does manage to enter college, enters a 2-year college in the majority of instances.

We have inferential evidence that the proportion of high school seniors who are over-age is likely to appreciably increase as time passes--from about one in five to perhaps one in four of the seniors. We derive the following table (presenting proportions of youth enrolled in school at various ages, and also presenting "per cent over the modal age" at each of the four high school grades) from Census data representing three-year averages, 1964-1966 (School Enrollment: October, 1966, Current Population Reports, Series P-20, No. 167, August 30, 1967, Table 9). The boxed figures in the body of the table represent enrollments for the modal age group at each grade.

III.9

Age of student	Per cent enrolled in school	Year of high school in which student is enrolled (Numbers of students in thousands)			
		1st	2nd	3rd	4th
		No.	No.	No.	No.
11	99.3	4	-	-	-
12	99.4	15	4	-	-
13	99.1	447	11	-	-
14	99.2	2,337	400	18	4
15	98.2	598	2,195	415	11
16	92.8	156	587	1,983	434
17	83.0	38	150	465	1,974
18	51.2	7	23	105	408
19	37.8	6	8	28	87
20	30.9	3	3	10	31
21	24.8	-	3	5	5
22	15.6	-	3	3	5
23	11.2	-	2	-	2
24	9.3	2	-	2	7
25-29	5.9	-	-	11	11
30-34	2.9	-	-	-	11
All ages		3,613	3,389	3,045	2,990
Per cent over modal age for grade		22.4	23.0	20.7	19.0

What we notice is that proportions over-age drop appreciably in the final years of high school, and that these drops are coincident with large decreases in proportions attending school in the later teens. Prior to age 16 nearly all children are enrolled in schools. Around 16 the years of compulsory school attendance draw to a close, and we simply infer the tendency for the over-age late teen-agers in the final years of high school to quit school. Not only age per se, for many representing mounting pressures to go to work, but also relatively low ability levels and relatively weak educational traditions in the home, would operate to this effect.

For the future, we assume that emphasis on the high school diploma will substantially reduce the incidence of such drop-out by over-age youth. If proportions of late teen-agers attending school were to rise to nearly the levels for younger children, we estimate that over-age 12th graders would represent about 25% of the seniors. We base this estimate on the steady gradual rise in proportions over-age between the early primary school years and the 10th grade, concurrent with the years of compulsory schooling. We assume this rise would continue to the 12th grade if drop-outs in the final years of high school were largely eliminated.

In sum, over-age 12th graders represent an appreciable educational problem today, and may well represent a greater one tomorrow.

Section IV

Historical Changes in the Educational Establishment

In a certain sense the long-term escalation in educational attainment we have described represents a process of painting oneself into an educational corner. The equalitarian impulse to liberalize access to ever higher levels of schooling has succeeded remarkably well, but has perpetuated relative educational deprivation by race and class. Furthermore, it has created a new problem for less academically able youth, who tend strongly to be lower socioeconomic youth,over-age youth, and racial minority youth. It would appear that for many of these students entering and completing the traditional 4-year academic college program would be extremely improbable. For many, meeting the requirements for a high school diploma appears to be difficult, and we anticipate later findings by noting that this is especially true for entering and completing the college preparatory program, the traditional road to college. The problem which escalation in attainment has brought is that of accomodating large and increasing numbers of less able students in institutions and programs designed to meet the extended requirements of intellectual elites. The problem became critical around the mid-1960s at precisely the time when high school graduation, followed by college entrance, was on the verge of becoming the modal behavior for white American youth.

In recent years attempts have been made to solve this mounting problem of relative educational deprivation at the college level by opening the doors of selective colleges to groups of academically less able youth. Most such programs have been addressed to racial minority youth rather than less able majority youth. Many such programs have met with considerable opposition from those who feel that student academic quality, as well as other academic excellences, should be rigorously maintained at the 4-year college level.

But it is another sort of effort at liberalization that represents the major approach to the problem--the creation of what amounts to a totally new higher educational institution, the 2-year public commuter college. The "open-door" college is indeed just that--inexpensive, requiring only high school graduation in most instances, academically undemanding compared to traditional 4-year schools, and offering a range of programs to meet the needs of less able and less ambitious students. The growth of the 2-year college parallels very closely that of the multi-purpose public high school in the last half of the 19th and early 20th centuries. Then, as today, escalation of educational attainment presented the problem of making more extended schooling generally available. The private college-preparatory academies and sub-collegiate departments of the colleges themselves could not meet this need. Few in number, selective in admissions, and designed principally for college-bound students, they simply did not offer the levels and ranges of schooling that the rising tide of secondary school aspirands required. The multi-purpose public high school emerged first in the developing Mid-West, and reached the earlier settled and educationally more traditional East considerably later. By the same token,the public junior college emerged first in the developing Far West following the end of World War I, and has become prominent in most other parts of the country considerably more recently. But the essential point is that it has become sufficiently prominent nationally and regionally, and in most states, so that we feel justified in speaking of a dual higher educational establishment.

By 1960, according to the Census Bureau follow-up of 1959-1960 high school seniors, about 22% of all immediate entrants to college entered 2-year colleges. The parallel study six years later found 34% entering such schools. In 1967, 38% of first-time freshmen were in junior colleges. The latter statistic includes delayed entrants, who tend to select 2-year, rather than 4-year, schools.* This explosive growth in the recent past represents an acceleration of earlier growth rates, and all the evidence seems to favor continuation of the expansion. Theoretically, at least, 2-year colleges in time could totally replace the initial two years of 4-year schools, but such an extreme eventuation seems unlikely. If we consider proportions of first-time freshmen in 2- and 4-year schools in states where 2-year colleges are more or less available, we gain a better perspective on the likely possibilities nationally. (We derive our data from the Office of Education's Opening Fall Enrollment in Higher Education 1967.)

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*Unpublished Fall 1966 census data on the college population indicate that about 41% of first-year students at 2-year colleges had delayed entrance over a year following high school graduation, whereas this was the case for only 27% at 4-year colleges. (See statistical appendix for detailed table.)

In California, the first state to launch a junior college movement, about 8 in 10 of all 1967 first-time freshmen enrolled in 2-year schools. In that state inexpensive public higher education is legally available to all high school graduates, and the major objective determinant of the level of college entered, 2-year college, state college, or branch of the state university, is the high school record. We suggest, then, that the California experience approximates the maximum for the nation as a whole several decades hence, should the states with few or no 2-year colleges legislate networks of such schools into existence. In states where the junior college movement is somewhat more recent, such as Florida, Washington, Illinois, and Texas, somewhat smaller proportions of first-time freshmen enrolled in 2-year schools in 1967 (70%, 65%, 49% and 41% respectively). In states where the movement is officially underway, but very recent, such as Alabama and Virginia, the 1967 proportions were 36% and 25%. In brief, use of 2-year colleges appears to be a function of their availability, which in turn is a function of legislative action creating such schools on a statewide basis. We should note that to a considerable extent in the past 2-year colleges have been most available in areas, such as the Far West, where a relatively affluent population, as well as one containing relatively few persons in academically disadvantaged groups, presumably need them least. Far larger proportions of the few Negro college entrants in that region than of whites do indeed enter 2-year colleges. Junior colleges have been least available in less affluent regions, such as the South, with its very large population of under-achieving Negro youth. Once again, and in spite of availability of primarily Negro colleges, in southern states where 2-year colleges are numerous, such as Florida, larger proportions of Negro than of white college entrants select such colleges.

The question we are bringing up, of course, is simply one of the extent to which the 2-year colleges are enrolling, and will increasingly enroll, the disadvantaged students they are designed to assist. The further question is whether or not the junior college is attracting students who formerly would have entered 4-year schools, or whether it is simply broadening the higher educational base by enrolling students who formerly concluded their education with secondary schooling. These questions form the principal topic of Section IX of this summary. Here we will simply present our best guesses as to probable short-term future trends for these "open door" schools.

1. First, we would expect the current total of nearly 1,000 2-year colleges to increase to about the same rate as in the recent past, or about 50 new schools per year.

2. We would expect that the recent acceleration of growth of 2-year colleges in areas where they have been least prevalent will also continue. In particular, Negro and less affluent white students in the generally less affluent South should have increased access to such schools.

3. We would expect the annual growth of 2-year college enrollments nationally to continue at least its recent annual rate of

9-15% for the next decade or so. We should remember that this increment would represent compound interest over a number of years.

4. We would expect that the 2-year colleges' national share of all first-time freshmen will rise from the 38% reported for 1967 to perhaps 70% by the early to mid-1980s, duplicating the current situation in the Far West. A few states, principally the New England states with a long and vigorous tradition of 4-year (in large part private) colleges and universities, may well fail to establish networks of public 2-year colleges--as has been the case to date.

Growth in enrollment and number of junior colleges

	Total			Public			Private		
Year	No. of colleges	Enrollment (000)	Per cent change	No. of colleges	Enrollment (000)	Per cent change	No. of colleges	Enrollment (000)	Per cent increase
1961	678	749	-	405	645	-	273	104	-
1962	704	819	+9	426	713	+11	278	106	+2
1963	694	928	+11	422	814	+14	272	113	+7
1964	718	1044	+13	452	921	+13	267	123	+9
1965	771	1293	+12	503	1152	+25	268	141	+15
1966	837	1464	+11	565	1317	+14	272	147	+4
1967	912	1671	+11	648	1528	+16	264	143	-3
1968	964	1922	+15	708	1747	+14	273	175	+22
7 yr % incr.	+42%	+157%		+75%	+171%		±00%	+68%	

Source: American Education, December-January, 1968-1969, Page 30, U.S. Office of Education.

In sum, if what we anticipate should occur, future development of the 2-year college would represent a major element in any realistic higher educational projection. Since 2-year colleges appear to have their own singular determinants of growth quite apart from the 4-year schools, and since 2-year college entrants represent a rising proportion of the total college population, realistic higher educational projections perforce must be based on separate trend data for the two types of schools.

We have considered 2-year colleges at length, since they are the least selective, least expensive of all types of colleges, as well as the colleges with by far the fastest rate of growth in recent years. Very briefly, however, we should mention the steady long-term growth of public versus private colleges, both 4-year and 2-year. It has been estimated that the cost of attending a year of college, 1966-67, was about as follows:

Type of college	Yearly cost of attendance*
Private 4-year	$2,600
Public 4-year	1,600
Public 2-year	1,100

*Includes direct and indirect college-related expenses
(Source: Students and Buildings, Froomkin, et al., OE-50054, 1968)

The cost of attending a public 4-year college is only about 60% that of attending a private 4-year one. Many public 4-year colleges are state colleges with generally liberal academic requirements for admission, which should further increase access for less affluent, and less able, high school graduates. In the mid-1960s tuition and fees at nine in ten public colleges were under $500, whereas at virtually all private ones they were over $500, and in about five in ten instances over $1,000.

Since 1890 there has been an uninterrupted long-term rise in proportions of college students enrolled in public institutions, as follows: (We derive the 1890 proportions from James Blodgett's report on the educational statistics of the 1890 Census--see Appendix A.)

Enrollment in public & private colleges

Year	Public %	Private %	Total %
1890	31	69	100
1967	70	30	100

In sum, whether by deliberate design, or simply in response to pressures for low-cost higher educational facilities, the historical trend has consistently favored colleges which lower socioeconomic students should be in a position to enter. Extension of the long-term trends (and especially the post-World War II trends) would simply lead to the overwhelming significance of the public college a few years hence--insofar, at least, as proportions enrolling in these schools represent the measure of significance.

Section V

Very Recent Trends in College Attendance

Our Census data age cohort analysis of educational attainment seemed to indicate a long-term central tendency, temporarily affected by depressions and wars, for about eight to ten in twenty of high school graduates (depending on race and sex) to enter college. By the early 1950s, when the analysis terminated, college entrance for all youth appeared to have recovered from depression and World War II "lows", and once again approximated the classic proportion. For non-white youth such recovery is less clear, since delay in college entrance is particularly frequent for this race group, and trends in the 1950s are difficult to determine. But for all youth, most of whom are white, the age-cohort trends from the mid-1930s to early 1950s parallel those reported by the Office of Education in its school retention data (number of college entrants in a given year as a proportion of 12th grade entrants, or graduates, the previous year).

Year of high school graduation	Proportion of all high school graduates entering college %
1934	39
1942	28
1950	41
1952	45
1954	51
1956	52
1958	53
1960	53
1962	53
1964	54
1966	55
1967	56

Indeed, though the Census and O.E. data do not represent precisely identical measures, the two historical series yield nearly identical proportions at any particular date. The two series appear to support each other. Consequently, we turn to the retention data to extend trends in college entrance for high school graduates to 1967. Between the early 1950s and 1967 a gradual but steady increase in graduates entering college raised the proportion from about 9 in 20 to about 11 in 20. A third data source, Census Bureau follow-ups of 1960 and 1966 high school graduates, supports the evidence for a rise in entrance rates in very recent years. The Census proportions at both dates are lower than those of the other two series, since only immediate entrants to college are included, but the direction and magnitude of the changes are parallel. In 1960 a little over four in ten of the high school graduates entered college immediately. By 1966 the proportion was nearly five in ten. If we estimate the increment to immediate entrants represented by the over-a-third of all graduates who delay entrance more than a year, it would seem likely that around six in ten 1966 high school graduates will eventually reach college--confirming the retention data evidence of a considerable recent rise in this proportion.

The questions become those of accounting for this rise, and attempting to determine just which types of students figure most, and which figure least, in the rise. The fuller our knowledge in these regards the better able we would be to build this knowledge into projections of probable future higher educational trends. We would further gain insights into which deterrents to college entrance are becoming less significant, and which are enduring ones, and perhaps increasingly significant ones.

Finally, we note that the increase in proportions of high school graduates entering college, 1960-1966, principally represented an increase in entrants to 2-year schools.

Section VI

Financial Characteristics of College Planners and Entrants

An earlier study of ours reviewed a number of surveys which obtained data on college plans of high school seniors, 1939-1959, and of parents of high school students for their children, chiefly from survey data obtained from the Roper Public Opinion Center, Williamstown, Mass. (see Appendix C for detailed tabulations). The Coleman study and the 1965 Census Bureau study of seniors permit us to bring such information very nearly up-to-date. We may also relate plans of seniors in 1959 and 1965 to post-high school behavior in 1960 and 1966, establishing the extent of relevance of plans to behavior, and consequently the empirical significance of planning trends over the past quarter century, 1939-1965. Let us first establish this latter point.

It would seem that if we estimate delayed entrants on the patterns for students entering college immediately, about 18 in 20 planners plus about 3 in 20 non-planners eventually go to college. It would seem that the plans of the seniors are generally realistic. If college entrance is the criterion, parents are considerably less realistic than are the children, and the parental aspirations are chiefly significant as possible determinants of the children's aspirations for themselves, rather than as direct predictors of what is likely to occur. Parents consistently tend to over-aspire for their children, but the patterns of aspiration for parents and children are parallel down the years in terms of student ability and socioeconomic class. We report these patterns for the children, considering two time spans, 1939-1959 and 1959-1965.

Between 1939 and 1959, and 1959 and 1965, post-high school plans of students changed as follows, according to a 1939 Roper survey, and the two more recent Census Bureau studies:

Year	Proportion of students planning on college %	Per cent increase
1939	40	
1959	47	+ 7
1965	60	+13

In the earlier 20-year span proportions planning on college increased modestly. As we have seen, so did proportions entering college, presumably concurrent with termination of the depression 1930s and World War II. In the later 6-year span the increase in planning was nearly twice that of the earlier 20-year one. The 60% who planned on college in 1965 appears to be a realistic approximation to those who will eventually reach college, when all the delayed entrants have been added to the 47% of the 1965-1966 seniors whom we know did in fact enter college immediately. A few of the planners, of course, fail to enter, and a few of the non-planners do enter. Roughly a quarter of the 1965 planners failed to enter college immediately, and about one in nine of the non-planners entered immediately.

With the planning trends in mind, as well as the extent of realism of plans, we next ask if the 50% increase, 1939-1965, in seniors planning on college represented especially large increases for any particular socioeconomic groups. Our measure for class is the occupation of the household head.

Between 1939 and 1959 all socioeconomic groups of students appear to have increased college planning to about the same extent, each group differing little from the modest 7% overall increase. Between 1959 and 1965, however, though children of white collar heads increased college planning by a considerable margin, 8%, children of blue collar heads increased planning by nearly double this amount, or about 15%.

For the 1959-1965 period we are able to make parallel comparisons for students at various family income levels. Whether we do or do not adjust 1965 versus 1959 income categories to accord with income distribution changes, the simple finding is that the rise in college expectations for low income students relative to medium income ones, and especially to high income ones, was far greater than when occupation of head of household is the measure. For affluent students the rise in expectations was about 6%, for medium income ones about 12-13%, and for the poor, the roughly one in eight students with 1965 family incomes of under $4,000, about 25%. (See statistical appendix for tables.)

The direct economic indicator of income, rather than the indirect one of occupation of head, was the one which elicited the largest differences in increase of college plans. The 45% initial gap in college planning between rich and poor students was reduced in six years to about 28%. Inferentially, it is money per se, rather than the other psychological and social attributes of class, that has most clearly lost much of its traditional relationship to college planning in very recent years. We repeat our finding that there is no evidence of parallel democratization in college planning in the 1939-59 span of years.

If we consider college planning for racial minority and majority students, the recent 1965 Coleman study and the Census study confirm each other. In 1965 minority high school seniors planned on college about as frequently as did majority ones, and also were nearly as likely as majority students to plan on extended higher education (the full four years of college or post-graduate study). This finding largely depends upon the considerably greater likelihood for minority, as compared with majority, girls to plan on college. But there appear to be two significant differences in planning patterns for the two race groups. Considerably higher proportions of minority students have tentative plans, and considerably higher proportions hope to reach senior college via the 2-year college route.

We can generalize by saying that minority seniors are no less eager than majority ones to attend college, but that their somewhat lower level of conviction that they will actually do so undoubtedly reflects in part the economic factor, and in part the academic problems facing this group, which we shall discuss presently. The findings also bear out our assumption that inexpensive 2-year colleges with liberal admission policies should be especially significant for minority youth.

The 1965 Census study also permits some tentative (given the small number of cases) comparisons between majority and minority youth regarding the perceived significance of college. Minority youth were considerably more likely than majority youth to perceive college as "the best way to get ahead in life." The difference is almost entirely accounted for by the higher evaluation of college by minority girls. However they evaluated college,minority youth (and especially minority girls) were as likely to plan on college. If we consider those who did not plan on college, only about 1 in 10 of either the minority or majority group cited finances as the "chief" reason for not so planning. Nearly 4 in 10 of the minority "non-planners," however, cited "taking a job," whereas just under 2 in 10 of the majority ones did so, indicating probable stronger overall pressures upon non-whites to become wage earners. But for the sample as a whole, the chief finding appears to be that very few seniors who failed to plan on college in 1965 cited finances as the chief obstacle. Only 1 in 6 of seniors with family incomes under $5,000 did so. If increased proportions of college planners in 1965, as compared with 1959, were less affluent youth, we may also say that by the mid-1960s very few of those who failed to plan on college considered lack of funds the primary deterrent;

	Race, sex, and family income of senior							
Main reason for not planning on college, 1965 high school seniors	White	Non-white	Boys	Girls	Under $5000	$5000-7499	$7500 & over	All seniors
	%	%	%	%	%	%	%	%
Learning a trade	23	18	28	17	18	29	24	21
Taking a job	18	37	16	23	26	18	16	20
No desire	14	17	15	14	11	15	17	15
Family can't meet cost, or work to help family	10	9	7	13	16	11	4	10
Marriage	9	-	2	12	9	8	8	9
Academic problems	7	7	11	4	6	2	9	7
All other reasons	19	12	21	17	14	17	22	18
All reasons	100	100	100	100	100	100	100	100

The 1959 and 1965 Census Bureau studies include follow-ups in 1960 and 1967 to determine post-high school behavior, and we may compare these two studies in order to determine whether the democratization in college planning which apparently occurred was paralleled by democratization in entrance to college. The answer appears to be in the affirmative, whether the measure is family income or occupation of the head of the household. It is also true that the change was slighter for actual behavior than for plans. The increase over six years in low income youth (the direct financial measure)occurred primarily at the 2-year colleges, offering further support for our belief that these schools represent a principal liberalizing influence in college attendance. Since the follow-up studies reported only upon immediate college entrants, we have no way of knowing precisely what the final comparisons would be, and present these limited findings with a minimum of comment. (See statistical appendix for tables.)

The scattered data on college planning, college entrance, and economic background all suggest a recent and considerable leveling of higher educational aspiration by class. The rise of the 2-year college appears to figure prominently in this trend. Other factors, of course, undoubtedly are related to the trend, such as increasing purchasing power for families in lower portions of the income distribution. Since the late 1950s a number of Federal programs of student aid, such as student loans, work-study funds, and educational opportunity grants have been inaugurated, and undoubtedly have made college available to mounting numbers of less affluent high school seniors. It is, indeed, particularly relevant that all of these liberalizing forces have become prominent at precisely the time when increased proportions of college aspirants derived from lower socioeconomic homes. But it is the growth of the 2-year college, growth which appears likely to continue, which appears to us most significant to the democratization of college attendance which apparently is occurring--if for no other reason, then simply because a new addition to the public educational establishment, if history offers sufficient evidence, tends to endure and to grow.

Section VII

Sources of College Financing

The 1967 Census survey follow-up of 1965-66 high school seniors, in conjunction with additional data from the Office of Education, afford insights into the ways in which recent college entrants finance their expenses.* They also offer insights into the extent to which the student is financed by "hidden subsidies"(government and institutional), direct student aid, family funds, and his own savings and earnings. To an extent, we can trace these patterns for more and less affluent students, and for students attending inexpensive (chiefly public) and expensive (chiefly private) colleges. (See statistical appendix for tables.)

In 1966-1967 the total yearly cost of educating a college undergraduate averaged about $2,800, including both direct and indirect college-related expenses. In point of fact, students who pay all of the expenses for which they were liable, direct and indirect, were billed for considerably less than $2,800--for about $2,600 at 4-year private colleges, $1,600 at 4-year public ones, and $1,100 at 2-year colleges. The difference between the actual bills and the cost of educating the student represents the hidden subsidy of undergraduates from private donors and governmental tax monies. This hidden subsidy is indeed a considerable one.

It is not precisely clear just how the total cost of undergraduate education was in fact financed, since the breakdowns by source of funding are very rough. Purely apart from the hidden subsidies to the student, most students do not pay all their billings, direct or indirect, from family and personal resources:

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*The additional OE statistics derived from Students and Buildings, Froomkin et al., OE-50054, 1968.

Funding of the total yearly undergraduate cost, 1966-67

	Per cent of total cost
Family & student income & savings	57
Student grants, work-study wages, veteran's benefits	5
Public & private loans	5
State, Federal, and private contributions-endowments	33
Total funding	100

The major insight this table offers is that the students pay over half the total cost from family and personal funds--that the hidden subsidy (plus some direct scholarship aid) account for a third of the cost, and that recent Federal aid programs, including loans, account for about a tenth of the cost. If we choose to consider work-study wages as personal resources similar to other employment earnings, rather than as student aid, this last proportion is further reduced.

If we turn to the 1967 Census data on entering freshmen, we may extend the analysis, in this instance considering the direct and indirect expenses for which these freshmen were liable.

Only about 1 in 5 freshmen paid these liabilities entirely from family funds, but over half paid over three-quarters from family resources (excluding their own savings and earnings). If the student had to pay a considerable portion of billings from non-family funds (25% or more) scholarships and work during the school year appeared to be the principal supplementary sources of funding such students turned to. There were only slight differences in funding by more or less family-financed students in terms of loans, summer employment, use of personal savings--but the less family-financed were over twice as likely to receive scholarships, and over three times as likely to work during term, as the more family-financed students.

Overall, traditional rather than newer ways of financing appear most significant in supplementing family funds. Of these traditional ways, summer employment is by far the most important. About two-thirds of the students, whatever the family funding, worked during the summer, whereas only about a quarter took out loans.

About three-quarters of all the entrants attended inexpensive public colleges (under $500 tuition and fees), and about 4 in 10 attended colleges charging under $250. This was especially true of less affluent students. Nevertheless, about 2 in 10 of less affluent students entered expensive colleges (tuition and fees $500 and over). About 1 in 10 entered schools charging $1,000 or more. It is for this minority of entrants that the newer aid programs seem especially significant in addition to scholarships. Students at colleges costing $500 or more were about two and a half times as likely to take out loans as students at less expensive ones (8 in 20 as compared with 3 in 20 of the respective groups).

The newer aid programs, in brief, appear to make attendance possible at expensive private colleges for the minority of less affluent youth who enter them, but it is the availability of low-cost colleges per se that permits the large majority of all youth who enter them to finance college primarily from family funds and their own savings and earnings, and only occasionally by incurring debt.

Presumably, considerable proportions of less affluent youth have good reason to enter more expensive private (and probably academically more selective) colleges, and for them recent Federal programs, plus apparent availability of scholarships, makes this choice possible. For the three in four of all students who enter inexpensive public colleges, and especially the 5 in 10 of lower income entrants who select colleges with tuition and fees under $250, it is the hidden state and local government subsidy of student costs which appears most significant.

Section VIII

Non-Financial Characteristics of College Planners

Introductory Remarks

If purely economic barriers to college planning and entrance appear to be losing a considerable portion of their past relevance, the focus of concern becomes that of other significant deterrents in the mid-1960s. Our principal source in exploring this question was the Coleman data on the college plans of 1965 high school seniors, since the large size of the sample (over 90,000 cases) permitted extensive multivariate analysis. In addition, the 12th grade questionnaire included a very wide range of items which presumably were related to post-high school plans, including a number of variables which have seldom or never, to our knowledge, been explored in earlier national studies. Finally, the size of the Coleman sample permitted separate multivariate analysis of male and female racial minority and majority seniors. To an extent, the more limited 1965-1967 Census data on plans and post-high school behavior supplemented the Coleman information, principally affording insights into characteristics of 2- and 4-year college entrants (reported upon in Section IX).

Part I - Aspiration and Motivation

Let us approach the Coleman data initially by means of the basic cross-tabulation and summary table which follows, presenting for each of the four sex-race groups the interrelationships between 1965 high school seniors' post-high school plans and desires. The table is basic, since the desires may be interpreted as the final outcome of all past influences upon the senior's educational level of aspiration, whereas the plans represent the aspirations modified by the actual post-high school possibilities as the senior perceives them. The plans, controlling for desires, also reveal the extent of pressures upon non-academically inclined seniors to enter college.

Post-high school desires of racial majority boys

Post-high school plans	No further education	Non-collegiate business or technical training	Part college	Four years of college	Graduate or professional school	All levels of aspiration
	%	%	%	%	%	%
No college	90	64	23	5	3	28
College probably	6	28	59	36	14	28
College definitely	4	8	18	59	83	44
All plans	100	100	100	100	100	100
No. of cases	4403	5212	3192	11,237	7351	31,395
Per cent of cases	14	17	10	36	23	100

VIII.3

Post-high school desires of racial minority boys

Post-high school plans	No further education	Non-collegiate business or technical training	No college	Four years of college	Graduate or professional school	All levels of aspiration
	%	%	%	%	%	%
No college	75	52	23	7	8	31
College probably	15	37	62	48	32	39
College definitely	10	11	15	45	60	30
All plans	100	100	100	100	100	100
No. of cases	2501	3061	1774	4318	2588	14,242
Per cent of cases	18	22	12	30	18	100

Post-high school desires of racial majority girls

No college	95	63	17	3	5	39
College probably	3	24	50	22	13	22
College definitely	2	13	33	74	82	39
All plans	100	100	100	100	100	100
No. of cases	4951	10,052	3539	8388	4231	31,161
Per cent of cases	16	32	11	27	14	100

Post-high school desires of racial minority girls

No college	78	48	18	5	5	32
College probably	14	37	57	38	24	34
College definitely	8	15	25	57	71	34
All plans	100	100	100	100	100	100
No. of cases	1711	6656	1485	3586	2744	16,182
Per cent of cases	11	41	9	22	17	100

Race and sex of senior	Of seniors not desiring college, proportion planning on college	Of seniors desiring college, proportion not planning on college	Of all seniors, proportion not desiring college
	%	%	%
Majority male	24	7	31
Minority male	38	11	40
Majority female	26	7	48
Minority female	46	7	52

	Of all seniors, proportion not planning on college	Of all seniors, porportion planning on college	
		College probably	College definitely
	%	%	%
Majority male	28	28	44
Minority male	31	39	30
Majority female	39	22	39
Minority female	32	34	34

2

We interpret the tables as follows:

1. Whatever the race, smaller proportions of girls than of boys desire college Whatever the sex, but especially for boys, smaller proportions of minority than of majority ~~boys~~ seniors desire college. Depending on the sex-race group between 3 in 10 and 5 in 10 seniors do not desire college.

2. Whatever the sex-race group (but especially so for minority seniors, and most especially for minority girls) lower proportions of seniors do not plan on college than do not desire it.

3. The net effect of 1 and 2 above is that the sex-race spread for desires (31 to 53 per cent) is considerably greater than for plans (28 to 39 per cent). Minority boys are slightly less likely to plan on college than majority boys, but the reverse is the case , and appreciably more strongly so, for the majority and minority girls. Majority girls are the group least likely to plan on college, and differences between the three other groups are slight. It should be noted, however, that minority seniors of both sexes are considerably more likely to have tentative rather than definite college plans.

4. The findings thus far are largely explained by the large proportions of seniors of each sex-race group (roughly a quarter to a half) who do not desire college, but nevertheless plan to attend. Such proportions are especially large for minority seniors, and largest of all for minority girls (the sex-race group least likely to desire college).

5. The converse of 4 above, however, has little relevance. Only a small proportion of students who desire college fail to plan on college. Presumably, the students who desire college, by and

large, feel that it is possible to enter. In turn, many who do not desire it feel that it is possible, and plan on it for their future occupational and financial welfare.

6. We conclude that it is the student who does not desire and does not plan on college who represents the core of the future higher educational recruitment problem:

Race and sex of senior	Seniors desiring college, but not planning on college	Seniors not desiring and not planning on college	All other seniors	All seniors
	%	%	%	%
Majority male	5	23	72	100
Minority male	7	24	69	100
Majority female	3	36	61	100
Minority female	4	28	68	100

Of all seniors not planning on college between 77 and 92%, depending on race and sex, do not desire college.

7. The appreciable tendency for larger proportions of majority than minority seniors to desire higher education is totally explained by the far larger proportion of academically able seniors in the racial majority population. At each verbal ability level, minority seniors are far more likely to desire extended schooling, and especially graduate or professional school, than are majority seniors. The findings for girls reported below pertain also for boys.

Post-high school desires of racial majority girls

Verbal ability of senior & no. of cases	No further education	Non-collegiate business or technical training	Part college	Four years of college	Graduate or professional school	All levels of aspiration
	%	%	%	%	%	%
Very low 2726	38	42	10	6	4	100
Low to average 14,401	20	42	13	18	7	100
Above average 14,043	7	21	10	40	22	100
All levels 31,170	16	32	11	27	14	100

Post-high school desires of racial minority girls

Very low 7938	15	47	10	19	9	100
Low to average 6754	7	39	9	25	20	100
Above average 1490	6	17	6	30	41	100
All levels 16,182	11	41	9	22	17	100

If the verbal ability distribution of the minority girls were identical with that of the majority ones, we estimate that the aspiration distributions for the two groups would be altered as follows:

Post-high school desires

Race and sex of senior	No further education	Non-collegiate business or technical training	Part college	Four years of college	Graduate or professional school	All levels of aspiration
	%	%	%	%	%	%
Majority female (actual)	16	32	11	27	14	100
Minority female (actual)	11	41	9	22	17	100
Minority female (with majority verbal ability distribution)	7	30	8	27	28	100

8. The detailed tables on desires and plans also tell us that the more extended the education aspired to, the more likely are college plans, and the more definite the plans. The findings pertain for all four sex-race groups, but especially so for majority seniors.

Another variable from the Coleman data tells us something more about the academic aspirations of students planning and not planning on college. The senior was asked: "How good a student do you want to be in school?" We compare majority and minority boys and girls initially for the simple distributions of response:

Race and Sex of senior	One of best	Above middle	Below middle or indifferent	All levels of desire
	%	%	%	%
Majority male	39	40	21	100
Minority male	56	27	17	100
Majority female	40	41	19	100
Minority female	59	26	15	100

As we have seen, minority girls, when we controlled for verbal ability, were considerably more desirous of extended schooling than majority ones. The desire to be a good student (presumably representing academic motivation apart from practical considerations rather more than is the case for post-high school desires) produces the same findings by race, but to an even more marked extent. Even if we do not control for ability, minority students of both sexes are considerably more likely than majority ones to wish to excel.

Since the extent of desire to be a good student discriminates between the race groups so well, we will consider it in some detail, once again comparing majority and minority girls.

In the tables which follow we attempted to determine to what extent the desire to be a good student was related to parental education and to verbal ability.

Extent of desire to be a good student

Majority girls

Mother's education & verbal ability	One of best	Above middle	Below middle or indifferent	All levels of desire	No. of cases
	%	%	%	%	%
8 grades or less	34	40	26	100	3927
Very low	21	33	46	100	632
Low to average	29	43	28	100	2166
Above average	51	39	10	100	1129
9-11 grades	35	41	24	100	7546
Very low	24	32	44	100	932
Low to average	29	43	28	100	4162
Above average	51	40	9	100	2462
12 grades	40	44	16	100	13,614
very low	21	35	44	100	770
Low to average	27	48	25	100	5945
Above average	54	40	6	100	6899
13 grades or more	53	38	9	100	4810
Very low	31	36	33	100	140
Low to average	31	50	19	100	1437
Above average	63	33	4	100	3233

VIII.11

Extent of desire to be a good student

Minority girls

Mother's education and verbal ability	One of best	Above middle	Below middle or indifferent	All levels of desire	No. of cases
	%	%	%	%	%
8 grades or less	59	24	17	100	3811
Very low	58	23	19	100	2171
Low to average	59	26	15	100	1423
Above average	65	18	17	100	217
9-11 grades	60	26	14	100	5300
Very low	58	26	16	100	2758
Low to average	62	26	12	100	2187
Above average	66	29	5	100	353
12 grades	58	29	13	100	3735
Very low	55	27	18	100	1399
Low to average	58	30	12	100	1835
Above average	66	29	5	100	501
13 grades or more	64	26	10	100	1455
Very low	58	29	13	100	366
Low to average	62	28	10	100	732
Above average	73	22	5	100	357

Our conclusions from the tables are:

1. For both race groups verbal ability has a strong relationship to desire to be a good student, but an especially strong one for the majority girls.

2. For both race groups parental education has a far weaker relationship than ability, though once again the association is strongest for the majority seniors.

Consequently, we cross-tabulated post-high school plans with desire to be a good student, controlling for level of ability, the variable most associated with desires--and one which, moreover, appears to subsume parental education in considerable measure. Though we do not present the detailed tables, controlling simultaneously for parental education and ability, we will simply note that findings differ little from those when ability alone is the control. The findings we report for majority and minority girls are substantially the same as for boys:

Extent of desire to be a good student

Majority girls

Verbal ability and college plans	One of best	Above middle	Below middle or indifferent	All levels of desire
Very low				
No college	57	62	79	68
College probably	27	25	16	22
College definitely	16	13	5	10
All plans	100	100	100	100
No. cases	614	892	1216	2722
% of cases	23	33	45	100
Low to average				
No college	37	46	69	50
College probably	26	26	20	24
College definitely	37	28	11	26
All plans	100	100	100	100
No cases	4057	6564	2756	14,377
% cases	28	46	26	100

VIII.13

Majority girls (continued)

Verbal ability and college plans	One of best	Above middle	Below middle or indifferent	All levels of desire
	%	%	%	%
Above average				
No college	16	27	54	22
College probably	15	23	24	19
College definitely	69	50	22	59
All plans	100	100	100	100
No. cases	7744	5406	876	14,026
% cases	55	39	6	100
All ability levels				
No college	25	39	69	39
College probably	19	25	20	22
College definitely	56	36	11	39
All plans	100	100	100	100
No. cases	12,415	12,862	5848	31,125
% cases	40	41	19	100
Minority girls				
Very low				
No college	30	41	58	38
College probably	39	41	31	38
College definitely	31	18	11	24
All plans	100	100	100	100
No. Cases	4492	1978	1430	7900
% cases	57	25	18	100
Low to average				
No college	21	33	54	28
College probably	31	36	30	33
College definitely	48	31	16	39
All plans	100	100	100	100
No. cases	4030	1854	877	6761
% cases	60	27	13	100
Above average				
No college	9	22	59	16
College probably	19	33	20	23
College definitely	72	45	21	61
All plans	100	100	100	100
No. cases	991	385	112	1488
% cases	66	26	8	100

Minority Girls (continued)

Verbal ability and college plans	One of best	Above middle	Below middle or indifferent	All levels of desire
	%	%	%	%
All ability levels				
No college	24	35	56	32
College probably	34	38	30	34
College definitely	42	27	13	34
All plans	100	100	100	100
No. cases	9513	4217	2419	16,149
% cases	59	26	15	100

The essential finding is simply that for both racial groups, and at each ability level, the desire to be a good student has a very strong positive relationship to college plans, and to the certainty of those plans. At each ability level, but especially for the above average students, this relationship is stronger for the minority girls who, moreover, are considerably more anxious to excel.

What the findings so far sum to is simply the very strong relationship between level of educational aspiration, academic motivation, and post-high school plans--quite apart from the classical factors of ability and family background. Also, since the classical factors are a weaker determinant of planning for the minority students, but the aspirations considerably stronger, the factors underlying differences in aspiration are especially relevant for the minority groups.

One such factor would seem to be the perceived practical advantage of a good education--whether or not the senior felt that, "even with a good education," he would "have difficulty getting the right kind of job."

The Coleman questionnaire contained a number of optimism-pessimism questions (luck and success, recurrent obstacles and success, satisfaction with self, etc.) and each of these was related to varying degress, but often considerably, to post-high school plans--for all four race-sex groups. We report this simple fact, but do not discuss these quite abstract variables further, since such variables tell us nothing of what underlies the optimism or pessimism. The question of the perceived "payoff" of a good education, however, does tell us something about at least one objective correlate of optimism-pessimism.

An interesting finding for this variable is that it is significantly related to post-high school plans (for all four sex-race groups) for students of above average ability only; nor does the mother's education appreciably alter the strength of the relationship. The following tables present the relationships for majority and minority males at the verbal ability extremes.

Difficult to get the right kind of job, even with a good education

Minority males of above average ability

Post-high school plans	Agree	Not sure	Disagree	All responses
No college	26	17	13	18
College probably	31	31	23	28
College definitely	43	52	64	54
All plans	100	100	100	100
No. cases	462	448	604	1514
% cases	31	29	40	100

VIII.16

Difficult to get the right kind of job, even with a good education

Majority males of above average ability

Post-high school plans	Agree	Not sure	Disagree	All responses
No college	19	16	11	14
College probably	30	27	19	23
College definitely	51	57	70	63
All plans	100	100	100	100
No. cases	2978	3739	7542	14,259
% of cases	21	26	53	100

Minority males of very low ability

Post-high school plans	Agree	Not sure	Disagree	All responses
No college	36	39	34	37
College probably	43	42	39	41
College definitely	21	19	27	22
All plans	100	100	100	100
No. cases	2047	1834	1816	5697
% cases	36	32	32	100

Majority males of very low ability

Post-high school plans	Agree	Not sure	Disagree	All responses
No college	57	54	52	55
College probably	27	32	30	30
College definitely	16	14	18	16
All plans	100	100	100	100
No. cases	993	930	905	2828
% cases	35	33	32	100

Though able students, and especially majority ones, are appreciably less likely to take the pessimistic position, the able pessimists of both race groups are strongly affected in terms of post-high school plans, whereas the less able ones are not. Perhaps the able pessimists set themselves objectively more difficult employment goals--perhaps other factors are involved. Whatever the reasons, the fact that only the able students are influenced is an interesting one, since it in part explains why differences in plans for students at different levels of ability are not greater than they appear to be.

Not unreasonably, we feel, able minority students are less sanguine about the employment benefits of a good education, than are able majority ones. They are also appreciably more influenced by their optimism or pessimism in terms of their planning.

With these remarks we conclude our direct concern with aspiration, motivation, and optimism-pessimism. For racial minority and majority students alike, the next question is that of additional variables, quite apart from the classical ones, that might account for differences in aspiration and motivation.

Part II. Less Understood Determinants of College Plans

Our basic conclusion is that there is no single additional variable--nor for that matter any single dimension--which clearly represents the "best" predictor of college planning. Rather, there are a number of variables, representing a number of dimensions, all of which are mutually associated to a considerable extent, but all of which have strong independent relationsips to post-high school plans. Let us list the most significant of these dimensions with specific relevant variables alongside. We exclude the aspiration variables we have already discussed, plus the two classical or control variables, parental education and verbal ability. We also exclude several variables we discuss separately in other sections, such as the senior's age and number of siblings.

Dimension	Variable
Educational tradition in the home	Mother's post-high school aspirations for senior
	Number of books in home
	Reading aloud in childhood
Educational "track" of senior	High school curriculum
School influence	Guidance advice offered senior
Senior's relative status	Senior's estimate of own brightness relative to classmates
	Senior's estimated social status in class
Senior's own aspiration level	Senior's occupational plans
Socioeconomic background	Occupation of head of household
Residence	Geographical region of residence

Let us first say that we hesitate to rank the items on this list for their independent relations to post-high school plans, principally because we are not certain to what extent certain variables on the list, such as the student's estimated relative brightness, fully explored the dimension they presumably represent, as compared with ones which clearly do so, such as the high school curriculum. Suffice it to say that all of the variables have strong independent relationships to post-high school plans for all four sex-race groups of seniors. In general, the relationships are somewhat weaker for racial minority than for racial majority seniors, arguing the particular significance of higher education for minority youth, despite contravening factors and influences--and perhaps reflecting the special educational facilities, such as the primarily Negro colleges, available to minority youth. For example, very low verbal ability minority seniors with mothers who enjoyed little schooling, and who are advised against college by guidance persons are appreciably more likely to plan on college than is the equivalent group of majority seniors. If we were to characterize the minority students as particularly "inner-directed," at least in regard to their educational plans, this derives its chief significance from the fact that so large a proportion of the minority seniors possess characteristics which deter most majority students from aspiring to college. This, of course, as the Coleman report so well documented, is especially true of objectively tested ability or achievement, and for socioeconomic background factors. For other relevant variables, such as guidance advice, parental aspirations, and estimated relative academic and social status, the distributions for minority and majority seniors are most nearly the same. Our broadest inference from these findings for racial groups is that college planning emerges from the cultural context of particular racial groups rather than from that of the total high school population.

We should also note that a number of variables--mother's education and verbal ability for example--are well known from earlier research for their strong and continuing relationsips to post-high school plans. Moreover, they represent (at the senior year of high school at least) relatively immutable characteristics. From the point of view of educational programs and policies it is student characteristics more amenable to change that are most interesting, and we shall accordingly focus on such characteristics. It is true, of course, that colleges may be altered so as to admit greater or lesser numbers of students from particular family backgrounds and at particular ability levels, and we shall consider the actual effect of the 2-year college in Section IX. In this section we shall simply use the mother's education and the senior's ability as control variables, and discuss the independent relationship of the listed variables to college planning.

The four variables that most concern us are the student's high school curriculum, the guidance advice he is offered, his estimate of his relative brightness in his class, and his estimated social status in class. The first two represent aspects of high school experience subject to deliberate manipulation by educators. The second two seem to represent the kind of competition faced by the student in a particular school--and to some degree perhaps the student's psychological orientation and achievement. Presumably, self-image may be altered by "grouping" students in different ways, or by the efforts of professional counselors. All four variables are independently associated with post-high school plans about as strongly as objectively tested ability.

Before discussing these four variables, we will present simple summary tables of the overall relationships between each of the variables on the list and post-high school plans for racial majority and minority seniors. On all except two of the tables we combine boys and girls, since the distributions for the independent variables are very similar for the two sexes, and the relationships between the independent and dependent variables are parallel. Occupational expectations of boys and girls differ considerably, so we present the two sexes separately. There are appreciable regional differences by sex in post-high school plans, especially for minority seniors, so we present separate tables for each sex group. Whatever the region, majority girls are considerably less likely to plan on college than are boys. This is true for minority girls in the Northeast and Midwest, but in the West (with its many 2-year public colleges) and in the South (with its many primarily Negro colleges) minority girls are about as likely as boys to plan on college, and appreciably more likely to have definite plans. Since about two-thirds of the minority seniors lived in these two regions, this finding has considerable empirical relevance. Our study of the primarily Negro colleges (see Appendix B) found that around 1930, 1940, and 1965 more minority girls than boys attended the Southern primarily Negro colleges, presumably because so many Southern Negro girls hoped to become teachers in the largely racially segregated Southern Negro elementary and secondary systems. (See Part III for further regional considerations.)

With this digression disposed of, let us turn to the summary tables. In Appendix C we selectively present more detailed tables (introducing control variables) to support the more significant findings we shall presently discuss. At the end of the following summary tables, for each ethnic group, we append the two principal control variables--simply to afford overall comparisons, for post-high school plans, with the variables that principally concern us here.

Majority seniors

Senior's estimate of own brightness relative to classmates

Post-high school plans	Among brightest	Above average	About average or below
	%	%	%
No college	12	21	49
College probably	13	23	28
College definitely	75	56	23
All plans	100	100	100
No. cases	7410	23,356	30,740
% cases	12	38	50

Senior's estimate of own social status among classmates

	At top	Near top	Around middle or below
No college	16	27	45
College probably	33	25	26
College definitely	51	48	29
All plans	100	100	100
No. cases	14,699	20,480	28,058
% cases	23	33	44

Senior's high school curriculum

Post-high school plans	College preparatory	All other curricula
	%	%
No college	8	56
College probably	22	27
College definitely	70	17
All plans	100	100
No. cases	29,060	33,018
% cases	47	53

Post-high school guidance advice given to senior

	To enter college	Not to enter college
No college	12	59
College probably	24	25
College definitely	64	16
All plans	100	100
No. cases	32,983	25,863
% cases	56	44

Mother's post-high school desires for senior*

	College	No college
No college	13	72
College probably	27	19
College definitely	60	9
All plans	100	100
No. cases	39,476	18,607
% cases	68	32

*as perceived by the senior

VIII.24

Kind of job senior expects following completion of education

Boys

Post-high School plans	Professional	Technical, official, managerial, farm owner	Skilled and semi-skilled, clerical, sales and a very few unskilled	Don't know
	%	%	%	%
No college	6	26	58	38
College probably	21	33	28	35
College definitely	73	41	14	27
All plans	100	100	100	100
No. cases	11,352	6608	7027	4581
% cases	38	22	24	16
Girls				
No college	13	40	66	54
College probably	19	25	22	24
College definitely	68	35	12	22
All plans	100	100	100	100
No. cases	12,875	2592	8992	5495
% cases	43	9	30	18

Number of books in senior's home

	Over two dozen	Two dozen or fewer
	%	%
No college	30	52
College probably	24	26
College definitely	46	22
All plans	100	100
No. cases	48,389	12,368
% cases	80	20

Senior's recollection of amount of family reading aloud in childhood

Post-high school plans	Many times	Fewer times, plus don't remember
	%	%
No college	28	41
College probably	23	26
College definitely	49	33
All plans	100	100
No. cases	36,626	25,604
% cases	59	41

Senior's region of residence

Boys

	Mountain & Pacific	Southeast & Southwest	Northeast	Midwest
	%	%	%	%
No college	18	29	29	33
College probably	29	29	26	27
College definitely	53	42	45	40
All plans	100	100	100	100
No. cases	5572	8305	9968	7369
% cases	18	27	32	23

Girls

	Mountain & Pacific	Southeast & Southwest	Northeast	Midwest
No college	25	40	41	46
College probably	26	22	19	23
College definitely	49	38	40	31
All plans	100	100	100	100
No. cases	5440	8276	10,130	8647
% cases	17	25	31	27

Verbal ability of senior

	Above average	Low to average	Very low
	%	%	%
No college	18	43	60
College probably	21	28	26
College definitely	61	29	13
All plans	100	100	100
No. cases	28,390	28,125	5560
% cases	46	45	9

Mother's educational attainment

Post-high school plans	13 grades or more	12 grades	11 grades or less, plus don't know
	%	%	%
No college	11	28	49
College probably	18	25	27
College definitely	71	47	24
All plans	100	100	100
No. cases	9990	28,081	24,007
% cases	16	45	39

Occupation of senior's father

	Professional	Technical, official, managerial, farm owner	Skilled & semi-skilled foreman, clerical, sales	Unskilled	Don't know
	%	%	%	%	%
No college	11	24	45	45	52
College probably	17	22	27	30	25
College definitely	72	54	28	25	23
All plans	100	100	100	100	100
No. cases	5698	18,122	23,111	3149	6604
% cases	10	32	41	5	12

Minority seniors

Senior's estimate of own brightness relative to classmates

Post-high school plans	Among brightest	Above average	About average or below
	%	%	%
No college	18	21	39
College probably	29	36	38
College definitely	53	43	23
All plans	100	100	100
No. cases	3876	8232	16,271
% cases	14	29	57

Senior's estimate of own social status relative to classmates

Post-high school plans	At top	Near top	Around middle or below
	%	%	%
No college	22	25	41
College probably	32	40	36
College definitely	46	35	23
All plans	100	100	100
No. cases	6620	9879	11,737
% cases	23	35	42

Senior's high school curriculum

Post-high school plans	College preparatory	All other curricula
	%	%
No college	10	40
College probably	32	38
College definitely	58	22
All plans	100	100
No. cases	8393	20,990
% cases	29	71

Post-high school guidance advice given to senior

Post-high school plans	To enter college	Not to enter college
	%	%
No college	15	46
College probably	36	36
College definitely	49	18
All plans	100	100
No. cases	13,171	11,479
% cases	53	47

Mother's post-high school desires for senior*

Post-high school plans	College	No college
	%	%
No college	15	56
College probably	40	31
College definitely	45	13
All plans	100	100
No. cases	17,983	9488
% cases	65	35

*As perceived by senior

Kind of job senior expects following completion of education

Boys

Post-high school plans	Professional	Technical official, managerial, farm owner	Skilled & semi-skilled clerical, sales & a very few unskilled	Don't know
	%	%	%	%
No college	9	26	44	42
College probably	34	41	40	39
College definitely	57	33	16	19
All plans	100	100	100	100
No. cases	2955	2705	3682	1804
% cases	27	24	33	16

Kind of job senior expects following completion of education

Girls

Post-high school plans	Professional	Technical official, managerial, farm owner	Skilled & semi-skilled, clerical, sales & a very few unskilled	Don't know
	%	%	%	%
No college	11	31	44	48
College probably	29	37	36	37
College definitely	60	32	20	15
All plans	100	100	100	100
No. cases	4977	1911	3781	2996
% cases	36	14	28	22

Number of books in senior's home

Post-high school plans	Over two dozen	Two dozen or fewer
	%	%
No college	26	39
College probably	35	39
College definitely	39	22
All plans	100	100
No. cases	18,301	11,871
% cases	61	39

Senior's recollection of family reading aloud in childhood

Post-high school plans	Many times	Fewer times, plus don't remember
	%	%
No college	24	38
College probably	36	37
College definitely	40	25
All plans	100	100
No. cases	15,784	14,241
% cases	53	47

Senior's region of residence

Boys

Post-high school plans	Mountain & Pacific	Southeast & Southwest	Northeast	Midwest
	%	%	%	%
No college	27	29	37	33
College probably	38	41	33	38
College definitely	35	30	30	29
All plans	100	100	100	100
No. cases	1739	7962	2683	1713
% cases	12	57	19	12

Girls

Post-high school plans	Mountain & Pacific	Southeast & Southwest	Northeast	Midwest
No college	29	27	42	36
College probably	34	37	30	34
College definitely	37	36	28	30
All plans	100	100	100	100
No. cases	1781	9062	3485	1762
% cases	11	56	22	11

Verbal ability of senior

Post-high school plans	Above average	Low to average	Very low
	%	%	%
No college	17	27	37
College probably	25	36	39
College definitely	58	37	24
All plans	100	100	100
No. cases	3052	12,109	14,222
% cases	10	41	49

Mother's educational attainment

Post-high school plans	13 grades or more	12 grades	11 grades or less, plus don't know
No college	13	24	36
College probably	26	35	38
College definitely	61	41	26
All plans	100	100	100
No. cases	2802	7330	19,296
% cases	10	25	65

Occupation of senior's father

Post-high school plans	Professional	Technical, official, managerial, farm owner	Skilled & semi-skilled, foremen, clerical, sales	Unskilled	Don't know
No college	15	27	28	34	43
College probably	24	35	37	37	35
College definitely	61	38	35	29	22
All plans	100	100	100	100	100
No. cases	1127	4028	11,486	7241	4278
% cases	4	14	41	26	15

Let us now describe and discuss the principal findings, focusing upon the student's high school curriculum, guidance advice, academic and social self-image, and to a more limited extent the mother's aspirations for the senior. (See Appendix C for detailed tables.)

1. Roughly 6 in 20 of all majority students in the upper half of the verbal ability distribution fail to follow college preparatory programs, and only 10 in 20 of such students plan on college. Nineteen in 20 above average ability students in college preparatory programs plan on college. Similar findings pertain for minority students.

2. About 5 in 20 of all majority male above average ability seniors are advised not to enter college by guidance personnel, and 8 in 20 so advised do not plan on college. Nearly 19 in 20 above average ability students advised to enter college plan to attend. Similar findings pertain for other sex-race groups.

3. Over 5 in 20 of all above average ability majority seniors believe that they are of average or less brightness relative to classmates, and over 1 in 3 of such students do not plan on college. Only 1 in 8 of above average ability students who feel that they are of above

average brightness do not plan on college. The findings are parallel for minority seniors, and also pertain if social status in class is substituted for relative brightness.

There is no need to cite further detailed findings to demonstrate the point that these four variables, when related to college plans and when ability is controlled, reveal considerable waste of talent--assuming that able students are the ones who should enter college. The converse of the points we have just made also pertains. Very low ability students plan on college especially frequently if they have followed college preparatory programs, are counseled to do so, or feel they stand high in their classes academically or socially. Large numbers of less able students are involved.

For example, only 12% of very low verbal ability racial majority males have definite college plans if they feel that they are of "average or below" brightness relative to classmates, but 29% have definite college plans if they feel that they are "above average" or "among the brightest." For other sex-race groups there are parallel findings, and findings are similar if the senior's estimated social status in class is the independent variable.

Just under 5 in 10 very low ability majority female seniors definitely plan on college if they have followed college preparatory programs in high school, but this is the case for under 1 in 10 who followed other programs. Findings are similar for other sex-race groups.

Only 1 in 20 very low ability racial majority females definitely plan on college if advised against it by teachers or guidance personnel, but 6 in 20 have definite college plans if the advice in school favors college. Parallel findings pertain for other sex-race groups.

Parallel relationships, for all four sex-race groups, pertain for our middle verbal ability category, "low to average."

The self-image variables seem particularly significant to us precisely because so little research has been devoted to them, and so little is known about the complex interplay of factors leading to particular self-images--as well as the factors which might modify mistaken self-images. The findings raise the question of the advisability of grouping able students with yet more able ones.

Inappropriate counseling (if ability is the measure of what is proper) has been studied in particular school environments, but there is a paucity of information on guidance criteria and practices for all high schools considered together.

The particular relevance of the high school curriculum is simply that it is an educational "track" entered at an early age and seldom departed from subsequently.

We are most concerned with the relationships between these four variables and post-high school plans for high ability students, the most likely candidates for college, but we should reiterate that the relationships pertain at all ability levels. The independent relationships remain strong ones even when we control for student ability and parental educational attainment simultaneously. A favorable academic self-image, for example, is not simply a reflection of a strong educational tradition in the home. (See Appendix C tables.)

To the extent possible we have attempted to interrelate these variables, and before turning to other areas we shall report major findings.*

The student's academic and social self-images are closely related, and would seem to be elements of an overall assessment of self. We assume that such a self-assessment partakes of the general stability which social psychologists have found for self-images during the high school years. Though the self-image questions were asked of seniors, and the high school program is entered by high school freshmen, we accordingly assume that the strong relationships we found between a favorable self-image and a college preparatory curriculum pertained earlier (at the time the high school curriculum was entered). This relationship indicates that these two variables, ultimately strongly associated with post-high school plans, are both closely and mutually associated with an early educational predisposition of the student, quite apart from ability and background.

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* We are still in the process of obtaining additional tabulations designed to explore these relationships. For example, controlling for the senior's ability and background, we wish to determine relationships between guidance advice and the senior's relative academic self-image--and the relative roles of each of these two variables in post-high school planning. Our data tapes do not include, however, any measures of the ability level of a student's classmates, and in consequence we will have little to say about the relationships between this important variable, guidance advice, relative self-image, and the senior's plans.

We tend to believe that there is considerable realism in the senior's relative academic self-assessment, and a 1958 Office of Education study, which related class rank to ability level on a national basis, offers empirical evidence that this could well be the case:

footnote continued on
following page

On the other hand, guidance counseling, though it is indeed an independent variable, nevertheless strongly reflects the intellectual tradition in the home, measured by parental education. Consciously or not, guidance counseling tends to reflect this tradition at least as much as it does the senior's demonstrated ability.

Guidance counselors and seniors' mothers agree considerably on which seniors should enter college, but strongly disagree on which ones should not. Overall, about 7 in 10 mothers aspire to college for their children, but this is the case for only about 6 in 10 guidance counselors. Mothers desire college for over half the seniors counseled against entrance.

If we examine advice at home and at high school offered the senior somewhat more closely, the chief patterns which emerge are as

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fn from preceding page

Per cent of high school graduates in each ability level by class rank: Continental United States, 1958

Pupil ability level	Per cent of graduates by class rank Total	 Upper third	 Middle third	 Lower third
	%	%	%	%
All pupils	100	39	34	27
Upper quarter	100	60	28	12
Middle half	100	29	40	30
Lower quarter	100	10	35	55

Note: For "all pupils" the class rank distribution does not represent precise thirds, since high school graduates are an academically selective group within the high school population.
Derived from: Greer and Harbeck, What High School Pupils Study, OE-33025, 1962, Table 7.

There is indeed considerable discontinuity between the two academic variables. Four in ten of the graduates in the upper quarter of the ability distribution were in the lower two-thirds of the class rank distribution. Over four in ten of the graduates in the lower quarter of the ability distribution were in the upper two-thirds of the rank distribution. There is ample opportunity for many pupils to form erroneous estimates of their academic abilities, should they base them on class rank.

Furthermore, this study found that: "There was a closer relationship between credits earned (during the high school career) and class rank than between credits earned and ability level."

follows:

1. Counselors apparently serve as a check on the tendency of mothers to desire college for very low or modest ability students. For example, they advise over half of very low ability students who are urged to attend by their mothers not to follow this advice.

2. On the other hand, though few mothers of above average ability students fail to desire college for their children, 3 in 4 counselors support such mothers in their negative advice. In addition, counselors advise against college for about 1 in 6 of above average ability students whose mothers, presumably quite reasonably, wish them to attend.

3. All in all, over a quarter of all above average ability students are counselled against college by school guidance persons, but such negative influence is exerted by under 1 in 10 of mothers of above average ability students.

4. Both mothers and counselors seem to reflect about equally, in their advice, the educational tradition in the home, or social class (however one wishes to define the mother's education). The higher the level of parental education, the greater the likelihood of advice favoring college. Presumably the counselor, then, employs additional criteria for advice not employed by the mother, and the question becomes that of why counselors advise so many able children not to attend college, even though parental support for extended schooling exists. Our data cannot answer this question. It would seem that further research into the determinants of counseling which runs counter to parental desires would be fruitful--especially in the instance of above average ability seniors.

If we compare the guidance advice offered the ~~majority~~ senior, the mother's aspirations for the senior, and the senior's plans, controlling for the senior's verbal ability, it seems clear that for both races there is a near concensus between mother and senior, but that the counselor is far less likely to advise on college--especially for seniors of lesser ability. Even for students of above average ability, school advice favors college appreciably less frequently than home advice, or the senior's own plans.

At lower ability levels the large proportion of minority students are far more likely to plan on college than the smaller proportion of majority ones. Indeed, lower ability minority students are more inclined toward college than are their mothers.

It is also clear that senior's mothers and counselors alike plan and advise within, rather than across, racial groups--in each instance opting for college at lower ability levels far more frequently for minority than for majority seniors. Given the relatively large proportions of lower ability minority seniors, the net effect is that home advice, school advice, and plans favor college overall for very nearly identical proportions of the two ethnic groups.

We may only speculate as to why counselors seem especially prone, as compared to both mothers and seniors, to take ability into consideration when opting for or against college. But it is indeed perplexing that counselors nevertheless depart appreciably from the parent-child consensus that above average ability seniors should go to college.

VIII.38

Proportions of mothers favoring, counselors advising for, and seniors planning on college entrance

Verbal ability & race of senior	Mothers*	Seniors	Counselors
	%	%	%
Very low ability			
Majority	41	40	25
Minority	57	65	45
Low to average ability			
Majority	58	59	42
Minority	70	74	57
Above average ability			
Majority	83	83	75
Minority	86	86	76
All ability levels			
Majority	68	68	56
Minority	65	71	53

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*We should note that the variable here is the senior's perception of maternal aspirations, rather than the response of the mother herself. A recent Bureau of Applied Social Research report (Actual and Perceived Consensus on Educational Goals between School and Community, David Wilder, et al., 1968, mimeo) found an 81% overall agreement between the mother's aspirations and the 10th grader's perception of these aspirations. The misconceptions of the children were principally related to exaggeration of the mother's actual aspirations, rather than the converse. (See Volume II, Section VII, p.361, Table 7.17, prepared by Eva Sandis). For the purposes of our study, the student's perception of the mother's aspirations is a very relevant variable, since it is what is perceived (however accurately or inaccurately) which presumably affects the perceiver, by and large.

Many of the findings of the Wilder study, and especially Section VII, supplement findings in the present report.

We should finally note (comparing minority and majority seniors) that the minority seniors are considerably more likely than majority ones to plan on college when parental desires are against it--whereas, if parental advice favors college the racial groups of seniors differ little overall in terms of plans. We simply assume the particularly strong motivation of the minority senior to enter college--despite relatively low ability, lower socioeconomic background, and despite parental indifference or opposition.

Mother's post-high school desires for senior

Post-high school plans and race	College	No college
	%	%
College		
Majority	87	28
Minority	85	44
No college		
Majority	13	72
Minority	15	56
All plans		
Majority	100	100
% cases	68	32
Minority	100	100
% cases	65	35

The remaining variables on our list round out the picture. The occupation of the head of the household yields findings and relationships very comparable to those for the mother's education. The higher the senior's own occupational aspirations, the better educated is the mother, the more able is the senior, and the more likely are college plans. The more books in the home and the higher the incidence of reading aloud in childhood, the better is the mother's education, the more able is the senior, and the more likely are college plans. The cultural traditions in the home, clearly related to the senior's aspirations, extend back to early childhood experience.

We shall speak of regional findings at some length in the pages immediately following.

Part III. Further Regional Considerations

For the senior's region of residence,* we have already noted the strong tendency for minority girls in the South and West to plan on college about as frequently as boys, whereas in other regions the girls are less likely to plan on college.

For both sexes of minority students, college plans are most likely in the West, with its many 2-year public colleges--and in the South, with its many primarily Negro colleges-- and less likely in the Northeast and Midwest. College plans are least likely in the Northeast, where so many colleges are expensive, relatively selective, 4-year private ones. We repeat that about two-thirds of the minority seniors live in the South and West where the opportunities to enter relatively inexpensive and less selective colleges are greatest. Only slightly over 4 in 10 of majority seniors live in these two regions.

We can gauge the relevance of Negro and 2-year colleges in the South and West, for minority seniors, by noting that in 1965 about 71% of Negro undergraduates in the Far West were attending 2-year schools, whereas only 49% of white undergraduates were doing so--and that about 78% of 1965 Southern Negro high school graduates entering college the following Fall were scheduled to attend primarily

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* The Coleman study regional groupings are far from perfect for our analytic purposes, only roughly reflecting geographical differences in availability of 2-year and primarily Negro colleges, differences in racial segregation, socioeconomic level, etc. We therefore assume that our regional findings are somewhat "muddied," and that only major relationships, rather than precise statistics, merit attention.

Negro colleges. We derive the data from our report on the primarily Negro colleges (see Appendix B).

For majority students, the only significant regional finding is that seniors in the West are the most likely to plan on college. This is the case for both boys and girls. Since about half of the white undergraduates in the West, 1965, were attending public 2-year colleges, but only about 7 to 16% in other regions (see the Coleman report) quite clearly the availability of inexpensive, non-selective, commuter colleges (as well as the many state 4-year colleges) in large measure accounts for the finding.

For the two ethnic groups, the fact that their college planning is so nearly the same is accounted for, of course, by the relatively high incidence of college plans for minority, as compared to majority, girls. This relatively high incidence occurs in the South and the Midwest, but not in other regions, where majority girls are slightly more likely than minority ones to plan on college. Roughly two-thirds of minority and majority girls alike live in the South and Midwest. Over half of the minority girls live in the South, where only 27% of this sex-race group, but 40% of majority girls, fail to plan on college.

Another tabulation from the Coleman data, college-planning by the racial mix in the student's school career, affords further insights into the strong tendency for Southern minority girls to plan on college. For minority girls, the larger the proportion of minority students in the student's school, the greater the probability of college plans. Largely segregated schools, of course, are by far most frequent in the South. This relationship is very weak or non-existent for minority boys. We suggest the following possibilities:

1. Minority girls attend segregated schools in the South, and do not compete with generally more able majority students.

2. These minority girls attend schools which "feed" primarily Negro colleges expressly created for their ethnic group.

3. These minority girls, as compared with minority boys, are especially likely to plan on and enter college because of teaching opportunities in segregated schools in the South. About half of all students in primarily Negro colleges, both in 1940 and 1965, planned to teach--and the proportion at both dates was far higher for the women than the men. (Data from our study of the primarily Negro colleges--see Appendix B.)

4. In general, the high incidence of college plans for Southern minority girls represents an especially clear instance of our more general finding that college planning, by and large, occurs within, rather than across, ethnic groups. Regional differences in segregation-desegregation status, and in associated opportunities following high school graduation, make this general finding more or less relevant, as the case may be.

Overall, regional differences in college planning are appreciable, but far less significant than the classic variables we have discussed, such as family background and ability--or the less understood ones, such as self-image, high school curriculum, and guidance advice. In large measure, regional differences are accounted for by the kinds of colleges available in different regions, and by the racial distribution by regions with few or many colleges attractive to particular racial groups.

The 50% plus of minority students living in the South benefit from the availability of Negro colleges in that region. Under one in eight minority students, but over one in six majority ones, live in the West. Accordingly, the majority students benefit (in terms of college-planning at least) somewhat more from the prevalence of 2-year colleges on the West Coast.

The role of the primarily Negro college in the South in inducing minority students to plan on college is especially significant, given the fact that Southern minority students are the least academically able of any regional minority. We do not offer the statistical evidence for the regional ability differences, since the Coleman report conclusively proved the point for a battery of assorted tests, and since data from our own study of Southern Negro students accord with the Coleman statistics.(See Appendix A and B for references.)

Part IV. The Senior's School Experience

Many of the variables we have considered in this section are undoubtedly related to the attributes of particular high schools, such as per capita pupil expenditure, educational policies and practices, geographical location, etc. The high school program a student enters, for example, certainly depends upon school characteristics--characteristics leading to a stronger or weaker emphasis on the college preparatory program. Unfortunately our data do not permit us to investigate school attributes to any great extent. All we are able to do in most instances is to infer differences between schools. For example, controlling for objectively tested ability, we infer that a more or less favorable academic self-image relative to classmates strongly reflects actual differences in student ability levels at different schools. The close relationship between the student's academic self-image and his marks, controlling for ability, supports this inference.

An earlier study, that of Natalie Rogoff Ramsøy (Bureau of Applied Social Research, Columbia University, mimeo) investigated this area of school effects in considerable detail, and we refer the reader to her report.

We will,however, discuss very briefly one aspect of the school experience reported in our data.

The number of times a student has changed schools during his school career appears to have little relation to post-high school plans for students with highly educated parents. But for able students from homes with weaker educational traditions, the relationship is considerable.

For example, majority boys of above average ability with mothers who completed the 9th to 11th grades planned as follows:

Post-high school plans	Number of school changes, school career None	 One or two	 Three or more
	%	%	%
No college	21	22	29
College probably	27	28	33
College definitely	52	50	38
All plans	100	100	100
No. cases	798	663	660
% cases	38	31	31

This relationship is far less significant than those found for variables such as verbal ability, or relative academic self-image, or high school curriculum. Nevertheless, it is appreciable, and most affects the able students who presumably should plan on college. We speculate as follows:

1. Able students from higher socioeconomic backgrounds are headed for college, in most cases, as a matter of course; however often they change schools they usually attend schools which are college-oriented per se.

2. Able students from less propitious background must "prove themselves" to teachers and counselors as "college material." Time, and the relationships that develop over time, would be strong factors in demonstrating such college potential in a particular school setting. Presumably, lower-socioeconomic students attend less college-oriented schools, and we have already noted the strong tendency for guidance personnel to advise against college for such students.

Section IX

Entrants to 2- and 4-Year Colleges and Non-entrants to College

To a limited extent the 1965-67 Census surveys permit us to develop profiles of 2-year and 4-year college entrants, and of non-entrants to college. The studies collected information for some of the variables discussed in the previous sections in terms of college planning, though information on such items as counseling, or the academic and social self-image, is not available. (Detailed tables relating to this section appear in the statistical appendix.)

The most significant difference in the profiles for the three groups--non-entrants, 2-year entrants, and 4-year entrants--lies in the high school course of study, college preparatory or otherwise:

High school curriculum	Did not enter college	Entered college			All high school graduates
		2-year college	4-year college	All entrants	
	%	%	%	%	%
College preparatory	19	56	84	74	45
All other	81	44	16	26	55
All curricula	100	100	100	100	100
% college preparatory	22	20	58	78	100
% "all other"	78	13	9	22	100

Presumably some of the non-entrants, especially the college preparatory ones, will eventually enter college. But the main finding is simply that the high school program not only differentiates the entrants from the non-entrants very strongly, but also differentiates the 2- and 4-year entrants equally strongly. Furthermore, though less than 1 in 4 non-preparatory students enter college, of those who do about 12 in 20 enter 2-year schools, whereas only about 5 in 20 of college preparatory entrants selected junior colleges. To the limited extent that non-preparatory students get to college, it is chiefly the 2-year college that enables them to do so. We reiterate our earlier finding that choice of the high school program in the freshman year of high school appeared as much related to relative academic self-image in class as to national test-score standing. It is also relevant to point out that between 1960 and 1966, according to the two Census studies, the 4-year college population increased appreciably in proportion of college-preparatory entrants, whereas there was no such trend at the 2-year colleges. Non-college preparatory entrants to 2-year colleges represented about 4 in 10 of all non-preparatory entrants in 1960, but by 1966 had risen to 6 in 10. Since the overall proportions of preparatory and non-preparatory entrants changed hardly at all in the six year span, it seems clear that there is a recent trend toward increasing differentiation of 2-year and 4-year college entrants by high school preparation.

If we turn to the student's tested ability, we find that ability distinguishes 2- and 4-year college entrants about as well as does the high school course of study, but that ability is far less relevant than the course to whether a student enters a 2-year college or fails to enter college. Just over 8 in 10 of non-entrants and

and just over 7 in 10 of 2-year entrants are medium or low ability students, but under 4 in 10 4-year college entrants are at this ability level. Though the 2-year college makes college possible for appreciable and apparently increasing proportions of non-college preparatory students, it is to an even greater extent the haven for students of modest ability. Even at the 2-year college, the high school curriculum is a greater determinant of entrance or non-entrance than is tested ability. Over the 1960-66 span the ability distribution for all college entrants, and for 4-year entrants, does not appear to have changed much. As the proportion of 2-year entrants rose from just over 1 in 5 to just over 1 in 3 of all entrants, this increase appears to represent large increases in both high and low ability students entering 2-year schools. The net change is that in terms of student ability the two types of colleges resemble each other slightly more, though in terms of high school curriculum of students they were further apart in 1966 than in 1960.

In brief, of the two academic variables it is the curriculum rather than ability that appears the more obdurate obstacle, both in terms of entering college or not, and for the type of college entered. For both variables, however, the 2-year college appears to be a strong, and increasingly strong, democratizing force.

If we turn to socioeconomic variables (family income, occupation of head of household, and father's education) all three differentiate non-entrants from 2-year entrants about equally, and to a considerable degree. They are more relevant than ability, but far less relevant than the high school course of study. Family income has only slight positive relationship to entering a 4-year rather than a 2-year school, occupation a modestly greater one, and father's education an even greater, and indeed considerable one. For type of school entered, we simply assume that the cultural component of socioeconomic status is more important than the purely financial one in the mid-1960s. But once again it is the curriculum decision early in high school (and its determinants) that appears to be of primary significance.

Section X

The Purpose of Limited Post-High School Education

Given the rapid and continuing growth of the 2-year colleges, and the role of these schools in democratizing higher education, the question occurs of just what the 2-year college entrant hopes to gain from his school.

The 1965 Census study secured specific information on the types of schools planned on by college planners, and the Coleman study secured information on the extent of higher education desired by college planners. The two sets of data are not strictly comparable, but nevertheless yield roughly similar distributions. Moreover, the patterns of the distributions for the two studies (overall and for racial groups) are parallel. Considered together, the two sets of data tell us a considerable amount about the meaning of the 2-year college (or, alternatively, limited years of college) for majority and minority students, and for more or less able students. Let us consider the Census data first:

Types of colleges aspired to by white and non-white college planners, 1965

Race	Junior college only	Junior & senior college*	All junior college	Senior college only	All college planners
	%	%	%	%	%
White	22	21	43	57	100
Non-white	23	34	57	43	100

*Students who plan to enter a junior college initially, and later transfer to a senior one.

Over 4 in 10 of white college planners, and nearly 6 in 10 of non-white ones, planned to enter a 2-year college. The 1966 follow-up study tells us that a considerably smaller proportion of all college entrants, 34%, in fact entered a 2-year college. The 2-year college aspirants were considerably more likely than the 4-year aspirants to have tentative plans, and were consequently considerably less likely to realize their aspirations. Nevertheless, the aspirations tell us something about what each of the two race groups hoped to achieve by entering a 2-year college. The white students were about equally divided between those who planned attendance at a 2-year school "only," and those who expected to transfer to a senior college. The majority of the non-white junior college planners, however, expected to transfer to senior college.

In brief, the larger proportion of non-white than white 2-year college aspirants is accounted for almost entirely by the non-whites' greater tendency to approach senior college by the junior college route. Once again, we assume that it is the academic and economic disparities between the two racial groups that largely account for the particular significance of the 2-year college to the minority students. Virtually the same proportions of both racial groups plan to attend a senior college--sooner or later. Finally, somewhat larger proportions of non-white than white college planners plan to attend graduate or professional school (27% and 21% respectively).

In point of fact, it has been estimated that about 1 in 3 of 2-year college entrants transfer to senior college, about 1 in 3 complete vocational programs, and the remaining students simply drop out for various largely unexplored reasons. Aspirations to enter a 2-year school and to transfer to a senior college apparently outstrip the performance by a considerable margin. About half the white students planning to enter 2-year schools,and about 6 in 10 of the non-white ones, plan to transfer, though just over 3 in 10 2-year entrants appear to have done so in recent years.

The Coleman data indicate that about 6 in 20 college planners in 1965 wished for less than the full 4-years of college, about 5 in 20 aspired to graduate or professional school, and about 9 in 20 wanted simply the baccalaureate. As one might expect, for both majority and minority students the extent of college experience desired was strongly related to ability. About 11 in 20 very low ability college planners had limited plans (less than 4 years) while this was true for only about 3 in 20 above average ability planners. At each ability level fewer minority than majority students had limited plans, and larger proportions aspired to post-graduate study. Since the minority ability distribution, as compared to the majority one, is so strongly skewed towards low ability the net effect, however, is that under 3 in 10 majority students, but precisely 4 in 10 minority ones, aspired to part-college only. The ability differences between the race groups operated similarly in terms of planning or not planning on college, save that very low ability minority students were even less deterred by this academic handicap, compared to majority ones, than in the instance of extent of college aspired to. The net effect here was that slightly higher proportions of the predominantly low ability minority students planned on college than was the case for the abler majority seniors.

One explanation of the apparent eagerness of minority students to enter college despite low ability, but to limit the amount of college desired, seems to lie in what they hope to learn from college. About 12 in 20 minority students with limited college aspirations hope to obtain technical or business training, whereas only about 9 in 20 majority students so aspire. From another perspective, about half of all minority students who hope for business or technical training seek it at a college rather than a non-collegiate school--whereas only a third of majority students seek such training at a college.

As we have noted, larger proportions of majority than minority students aspire to limited college at each ability level. In addition, at each ability level minority students are more likely to desire post-graduate study. Perforce,lower proportions of minority than majority students at each ability level seek the baccalaureate only. Just why this is so we do not precisely know.

For minority students we simply note that the 2-year college is not only especially important as an alternate "open door" route to senior college, but also represents an avenue to middle-level white collar training. (See Section XII for possible employment implications.) Though this is also true for majority youth, it would appear that these students are better able to afford private non-collegiate technical or business training. For less affluent majority youth we assume that the 2-year college fulfills the same function of inexpensive vocational training that it appears to fulfill for minority students. We are not certain just why minority seniors at each ability level, as compared to majority ones, are particularly anxious to attend graduate or professional school, though appreciably less interested in four years of college only. We speculate as follows, deriving our hypothesis from findings from our 1965 study of students attending primarily Negro colleges.

Negro college students do not aspire to managerial and executive jobs, but rather to professional jobs, and particularly to teaching. This is the case since they perceive great difficulty in obtaining managerial and executive positions in competition with equally qualified white applicants. They perceive less such difficulty in obtaining professional employment, and least difficulty in obtaining teaching jobs. Presumably, many are thinking of professional and teaching assignments within the Negro community. Entrepreneurial opportunities within the Negro community are relatively infrequent. Graduate study is required for many professional jobs, and it represents the road to advancement in the teaching profession, even at the primary and secondary levels. Negro college students, and especially Negro girls, are particularly likely to plan to teach, as compared to white students. Hence the emphasis on graduate work by minority students. The fact that it is the non-white girls, rather than the boys, who are most likely to aspire to graduate school, supports our hypothesis. (See Appendix C for tabulations of the Coleman data.)

Section XI

Family Structure, Socioeconomic Class, and College Attendance

So far, we have considered college planning and entrance in terms of student characteristics--socioeconomic background, ability, self-image--and home and school influences. In this section we will discuss characteristics of the family per se--namely, the relationships between college entrance and family structure, in this instance represented by the number of children of college-going age at various family income levels. We will also discuss the possible future effects of a rising level of parental educational attainment upon college planning and attendance, and finally the possible future effects of an inter-generational 2-year college tradition upon growth of the junior college enrollment.

Let us consider the first of these topics. The 1966 Census data on 2- and 4-year college entrants by family income, when combined with Census Bureau P-60 series data, yield the following table, representing numbers of high school graduates, and 2- and 4-year college entrants, per 1,000 families at each of five income levels:*

Family income	High school graduates	College entrants			B ÷ A	C ÷ B
		Total	2-year	4-year		
	(A)	(B)	(C)	(D)		
Under $4,000	139	36	14	22	.26	.39
$4,000-7,499	148	58	22	36	.39	.38
$7,500-9,999	112	58	22	36	.52	.38
$10,000-14,999	105	66	20	46	.63	.30
$15,000 and over	74	62	14	48	.84	.23

*The relevant families are those with parents in the age cohort which would normally have college-age children.

We read the table as follows:

1. Except at the lowest income level, under $4,000, families at each level were nearly equally likely to send one child to college.

2. The more affluent families were more likely to send this child to a 4-year college.

3. The less affluent the family, the larger the number of high school graduates. The number of high school graduates per 1,000 poor families was about twice as many as for affluent families.

4. In sum, though rich and poor families are about as likely to send one child to college, the poor families send far fewer of their more numerous offspring to college. For example, families with modest incomes of $4,000-7499 send about 4 in 10 of their high school graduate sons and daughters to college, whereas the equivalent proportion for the well-to-do ($15,000 income and over) is over 8 in 10.

We can only speculate on what lies behind these findings. For the less affluent families with more numerous high school graduate offspring, the financial problem of sending many or all the offspring to college must be particularly formidable. It is indeed impressive that with less funds available than well-to-do families, they are nevertheless nearly as likely to send one of their children to college.

Furthermore, given smaller numbers of siblings, children in more wealthy families are more likely to be first or only children--precisely the group of children which research such as that of the Merit Scholarship Corporation has characterized as high-achieving, highly motivated, and aggressive--in short, the kinds of children most likely to enter college.

For the future we speculate as follows:

1. There has been a down-turn in fertility in recent years. Very possibly this trend may continue.

2. If future trends duplicate past ones, the general rise in absolute socioeconomic status which is occurring at lower portions of the socioeconomic family distribution should especially favor dropping birth rates for such families.

3. In brief, there is the strong possibility that the number of children per family at various income levels may be considerably closer some years hence than today. If such were to occur, the proportions of all rich and all poor children entering college should become more nearly the same as time passes.

We speculate further:

1. Our research findings indicate a diminishing relationship between socioeconomic status and college planning and entrance in recent years.

2. It appears to be the financial component of socioeconomic status that is losing much of its relevance to post-high school behavior, whereas such components as parental educational attainment, representing the educational tradition in the home, remain strong determinants of college planning and entrance.

3. Upper income parents are generally highly educated parents and send the great majority of their children to college. Lower income parents are nearly as likely as upper income ones to send at least one child to college, though far less likely to send all their more numerous children to college.

4. We hypothesize that the few highly educated low income parents tend to send all of their children to college, whereas the many poorly educated low income parents tend to send few or none of their children to college.

If the patterns hypothesized in (4) above should pertain, and if the escalation in educational attainment which we have noted at lower socioeconomic levels since the late 1930s (and especially since the late 1950s) should continue in the years ahead, then an increasingly strong educational tradition in the home at lower portions of the family income distribution should favor further democratization of college entrance by class. For both men and women, Census Bureau educational attainment projections anticipate a 30-35% rise, mid-1960s to 1980, in proportions of the population in their forties (the bulk of the age cohort with high school graduate children) who will have enjoyed at least a year of college. (See Table 9, Current Population Reports, Series P-25, No. 388, March 1968.)

The Coleman data permit us to examine quite closely the complex relationships between the number of children in the family, the educational attainment of the high school senior's mother, the senior's tested verbal ability, and the senior's post-high school plans. We can explore these relationships for racial majority and minority boys and girls. The findings for the race groups are parallel, though each of the three independent variables has a somewhat weaker relationship to the dependent variable (post-high school plans) for the minority seniors. We shall present examples for majority boys and girls where cases are more numerous and shall compare seniors with mothers at the two educational attainment extremes--eight grades or less of schooling versus four years or more of college.

Let us summarize what we found:

1. As we would expect from the data cited earlier in this section, large numbers of children in the family were far more frequent when the mother had little, rather than extended, schooling. For boys and girls alike, about 4 in 10 seniors with grammar school educated mothers had two or fewer siblings, whereas this was the case for nearly 7 in 10 with college graduate mothers.

2. Whatever the mother's education, and for both boys and girls, the fewer the siblings, the more likely were college plans. However, this relationship was far stronger for seniors with less, rather than more,educated mothers:

Majority girls

Mother's education and number of siblings

	Eight grades or less					College graduate or more				
Post-high school plans	None	One	Two	Three plus	Total	None	One	Two	Three plus	Total
	%	%	%	%	%	%	%	%	%	%
No college	47	51	54	64	59	7	6	10	12	9
College probably	27	24	24	22	23	16	12	11	16	13
College definitely	26	25	22	14	18	77	82	79	72	77
All plans	100	100	100	100	100	100	100	100	100	100
% cases	6	16	18	60	100	9	30	28	33	100

3. The relationships in (1) and (2) above, in combination, produce a considerable negative association between large numbers of siblings and college planning--an especially strong association where parental education is low and the relatively high incidence of numerous children contributes to the net effect upon the total group.

4. To a considerable extent the negative relationship between the number of siblings and post-high school plans appears to derive from a parallel negative relationship between family size and level of tested ability (level of ability, of course, is strongly and positively associated with college plans):

Majority girls

Mother's education and number of siblings

	Eight grades or less					College graduate or more				
Verbal ability	None	One	Two	Three plus	Total	NOne	One	Two	Three plus	Total
	%	%	%	%	%	%	%	%	%	%
Very low	14	10	12	19	16	4	3	3	3	3
Low to average	43	54	56	56	55	23	24	26	30	26
Above average	43	36	32	25	29	73	73	71	67	71
All levels	100	100	100	100	100	100	100	100	100	100
% cases	6	16	18	60	100	9	30	28	33	100

Once again, the negative relationship is strongest for the seniors with less educated mothers who, moreover, trend to be less able than seniors with highly educated mothers, far above and beyond the explanatory power of the family size variable.

Nevertheless, the negative relationship between ability and family size is an appreciable one. Our data cannot account for this relationsiup, nor explain why it is particularly strong at lower socioeconomic levels.

5. For the seniors with poorly educated mothers (those whose plans were most clearly affected by family size), we attempted to determine the independent effect of family size upon plans (independent of ability) by simply cross-tabulating post-high school plans and family size, while controlling for level of ability. At each ability level family size did have a considerable independent relationship to plans. Presumably, this finding represents in part the financial difficulty of sending numerous children to college, however able they might be, as well as possible differences in aspiration levels in different sized families for complex social-psychological reasons.

6. In sum, family size appears to be significantly related to post-high school plans, but this relationship is clearly a complex one involving many other variables. Family size is also significantly related to level of ability. These relationships are far stronger at low than at high socioeconomic levels, for whatever reasons. Family size, however, is far less strongly related to post-high school plans than the classical determinants, such as ability itself, socioeconomic class per se, and the high school curriculum. It is far less related, also, than are the other variables we have emphasized in this report, such as guidance counseling, the senior's academic self-image relative to classmates, and the senior's estimated social status in school.

As closely as we can estimate, reconstituting the family size distribution of seniors with poorly educated mothers to accord with that of seniors with highly educated mothers would increase proportions of the former seniors with above average ability, and those with definite college plans, by about ten per cent in each instance. Such a rise, appreciable in itself, nevertheless represents only a small fraction of the discrepancies in ability and post-high school plans by socioeconomic class.

We append one final hypothesis to this section of our report:

1. We anticipate continuation of the recent sharp rise in proportions of college entrants entering 2-year schools (22% to 34% in the 1960-1966 span of years).

2. Not only does college attendance per se tend to be an inter-generational family tradition, but also choice of a 2-year school is inter-generational. The child tends to select the type of college the parent attended. We derive the data from the Census 1966 follow-up of 1965 high school seniors:

Father's education	Type of college entered		
	2-year	4-year	All colleges
	%	%	%
11 grades or less	50	50	100
12 grades	27	73	100
13-15 grades	43	57	100
16 grades or more	14	86	100

In general, the greater the father's educational attainment, the less likely is the child to enter a 2-year college. But this relationship is not a strictly linear one. Children of "part-college" fathers are over half again as likely as children of high school graduate fathers to enter 2-year colleges, but at the same time they are three times as likely to enter 2-year schools as children of college graduates.

This finding should become increasingly relevant in future years, as increasing proportions of fathers are educated at the "part-college" level. We simply conclude that the 2-year college will play a particularly large role in the democratization of college going by class which we anticipate as parental educational attainment rises.

Section XII

Occupational Expectations and Reality

Throughout this report we have focused on post-high school educational plans and behavior and their more significant determinants. Before summarizing the findings, we wish to discuss the relationships between the plans and aspirations of the Coleman study high school seniors and their responses to the following question: "When you finish your education, what sort of a job do you think you will have?" The question relates to expectations, rather than hopes or desires. It is also phrased to call for the type of job entered early in the student's career, rather than his ultimate occupational expectations. Consequently, if we could determine, for recent younger age-cohorts of racial majority and minority men and women, the actual occupational distributions at various educational levels, we could roughly gauge the realism of the occupational expectations of the seniors planning, or not planning, on college. As we shall see, 1960 Census data indicate that the extent of higher education experienced (no college, part college, or full college or more) is strongly related to the occupation held by the younger worker. Consequently, for the seniors we present a preliminary cross-tabulation of post-high school plans and the extent of post-high school education desired. With this information on the extent of higher education desired in mind, we are in a better position to judge the realism of the occupational expectations of the seniors who plan on college.

Our principal concern is not with the degree of realism of the post-high school educational plans and desires per se. Some planners will not attend college, of course, and the February 1967 Census follow-up of 1965-66 seniors found about one in nine non-planners entering college immediately. Also, about 11 to 16 in 20 planners (depending on race and sex) aspire to full college or more, whereas the long-term historical proportion of college entrants who graduate (see Appendix C tables) has been around half of racial majority boys, and a bit over 4 in 10 of the other sex-race groups. There have been only moderate fluctuations around these proportions, attributable to wars, depressions, GI bills, etc., and we assume that in very recent years, possible departures from the long-term proportions would be similarly moderate.

It is not the realism of the educational plans and aspirations per se, however, that interests us, but rather the role of occupational expectations in the formation of these plans and aspirations--and principally the realism of the expectations, given the level of education planned and aspired to. In Section VIII, Part I, we discussed the one quarter or more seniors who did not desire or plan on college, and the quarter to half of seniors (depending on race and sex) who did not desire college, but planned on it. We inferred that expectations for later life, and job expectations in particular, were major determinants of the plans of these seniors. In the following pages we explore this assumption to the extent that the data permit.

Our comparison data for realism of occupational expectations are far from perfect, representing the occupation held by persons 25-29 years of age in 1960 (the vast majority of whom would have completed their formal educations). These persons would have been high school graduates around 1950, and one could question whether the actual experience of 1950 seniors is a valid index of realism of expectations of seniors some 15 years later, in 1965. We use these data simply because they are the most recent available. We argue that the comparison, though rough, is generally valid, given the sizes of the differences between earlier realities and more recent expectations, controlling respectively for educational attainment and educational plans. We argue as follows:

1. Between 1960, when the 25-29 year age cohort reported occupation, and 1968, the latest year for which data is available, upper white collar workers in the U.S. employed labor force increased only from about 21.8 to 24.4 per cent. Our middle tabulation category "lower white collar and upper blue collar" hardly changed at all. A decrease in laborers, and particularly farm laborers, is of minor relevance, since so few high school graduates expect to, or actually do, enter this occupational group. Perhaps upper white collar workers may represent 27 per cent or so of the employed by 1975, when the 1965 high school seniors are in their late twenties. (See Statistical Abstract, 1968, Table 324.)

2. Between 1950 and 1965 the proportion of the age cohort entering college increased by over 80 per cent. (See Statistical Abstract, 1968, Table 181.)

3. In brief, increases in college entrance have been far greater than past, plus expected, increases in better jobs. If anything, the competition for such jobs should be increasingly intense, and the level of educational attainment a stronger determinant of who gets the

better jobs. Employers hire the better educated for the better jobs when able to do so.

Without further preamble, we present the relevant tables:

Race of senior	Proportion of seniors who "don't know" what kind of job they expect following completion of education
	%
Majority boys	15
Minority boys	18
Majority girls	16
Minority girls	22

Extent of education desired by high school seniors planning on college (Coleman data)

Post-high school plans, race & sex of senior	Less than baccalaureate	Baccalaureate or more	All levels
	%	%	%
College probably			
Majority boys	41	59	100
Minority boys	48	52	100
Majority girls	65	35	100
Minority girls	64	36	100
College definitely			
Majority boys	8	92	100
Minority boys	19	81	100
Majority girls	20	80	100
Minority girls	27	73	100
All college planners			
Majority boys	21	79	100
Minority boys	35	65	100
Majority girls	36	64	100
Minority girls	46	54	100

Majority boys

Expected occupation following completion of education (Coleman data)*

Post-high school plans	Upper white collar	Lower white collar & upper blue collar	All laborers	All occupations
	%	%	%	%
No college	37	57	6	100
College probably	70	29	1	100
College definitely	92	8	-	100
All college	84	15	1	100
All plans	72	26	2	100

White men, 25-29 years of age

(1960 Census data--PC(2), Educational Attainment, Table 8)

Educational attainment				
9-11 years	10	80	10	100
12 years	20	74	6	100
13-15 years	39	58	3	100
16 years	68	31	1	100
17 years or more	86	15	1	100
All college	59	39	2	100
All levels	31	63	6	100

*Excludes "don't know" for occupation

Minority Boys

Expected occupation following completion of education (Coleman data)*

Post-high school plans	Upper white collar	Lower white collar & upper blue collar	All Laborers	All occupations
	%	%	%	%
No college	37	56	7	100
College probably	59	39	2	100
College definitely	81	17	2	100
All college	69	29	2	100
All plans	61	36	3	100

Non-white men, 25-29 years of age
(1960 Census data--PC(2), _Educational Attainment_, Table 8)

Educational attainment				
9-11 years	3	70	27	100
12 years	6	76	18	100
13-15 years	18	73	9	100
16 years	68	30	2	100
17 years or more	84	15	1	100
All college	41	53	6	100
All levels	12	69	19	100

*Excludes "don't know" for occupation

Majority girls

Expected occupation following completion of education (Coleman data)*

Post-high school plans	Upper white collar	Lower white collar & upper blue collar	All Laborers	All occupations
	%	%	%	%
No college	31	68	1	100
College probably	61	38	-	100
College definitely	90	10	-	100
All college	81	19	-	100
All plans	63	37	-	100

White women, 25-29 years of age

(1960 Census data--PC(2), Educational Attainment, Table 8)

Educational attainment				
9-11 years	5	93	2	100
12 years	9	90	1	100
13-15 years	40	60	-	100
16 years	80	20	-	100
17 years or more	90	10	-	100
All college	60	40	-	100
All levels	23	76	1	100

*Excludes "don't know" for occupation

Minority girls

Expected occupation following completion of education (Coleman data)*

Post-high school plans	Upper white collar	Lower white collar & upper blue collar	All Laborers	All occupations
	%	%	%	%
No college	31	68	1	100
College probably	54	46	-	100
College definitely	80	19	1	100
All college	69	31	-	100
All plans	59	40	1	100

Non-white women, 25-29 years of age

(1960 Census data--PC(2), Educational Attainment, Table 8)

Educational attainment				
9-11 years	3	94	3	100
12 years	6	92	2	100
13-15 years	24	75	1	100
16 years	81	19	-	100
17 years or more	92	8	-	100
All college	55	45	-	100
All levels	17	81	2	100

*Excludes "don't know" for occupation

We preface our discussion of the educational plans and occupational expectations of the seniors, and the apparent realism of the expectations, by noting that about 15 to 22% of the seniors (depending on race and sex) had no clear occupational expectations. These seniors tended to be lower ability ones, and also tended not to plan on college, or to have tentative plans if they did so plan. (See detailed Appendix C tables.) Perforce we limit our remarks on realism of occupational expectations to the roughly 16 to 17 in 20 seniors who reported occupational expectations.

The tables appear to document the following conclusions:

1. Whatever the race or sex, between three and four in ten seniors not planning on college expect to enter upper-white collar occupations. Of the students so expecting, roughly one in seven (minority males), one in two (majority males), one in six (minority females), and one in four (majority females) appear likely to enter such occupations. Quite clearly, substantial proportions of the substantial numbers of non-planners fail to realistically relate their educational plans to their probable fate in the labor market.

2. About seven in ten minority college planners and over eight in ten majority ones, expect to enter upper white collar occupations. For all four sex-race groups these plans appear to be generally realistic if, and only if, the seniors complete four years of college. Those who attend graduate or professional school appear virtually certain to enter upper white collar jobs.

3. For all four sex-race groups, but especially so for minority boys and girls, part college is unlikely to lead to upper white collar jobs. For example, at the extremes, about four in ten part-college white majority women held such jobs, and under two in ten minority men.

4. Given--a) the two to nearly five in ten planners (depending on race and sex) not desiring the baccalaureate; b) the roughly half of college entrants who historically have failed to graduate; and c) the very high proportions of college planners expecting upper white collar jobs (seven to over eight in ten), we simply conclude that many part-college aspirants will be disappointed in the jobs they will in fact obtain. We repeat that such disappointment appears especially probable for racial minority part-college students.

5. In sum, only the seniors who plan four years or more of college appear to be generally realistic in their occupational aspirations, and we can divide the four sex-race groups of seniors as follows:

Race & sex	Quite realistic	Considerable lack of realism	All seniors
	%	%	%
Majority boys	59	41	100
Minority boys	48	52	100
Majority girls	41	59	100
Minority girls	39	61	100

For each sex, especially large proportions of minority seniors fall into the unrealistic category, and we have already noted the greater unlikelihood of fulfilled expectations for minority students.

We may only speculate what lies behind these findings. Are high school counselors and teachers failing to communicate to many students a realistic picture of the relationships between educational attainment and job opportunities? Do parents contribute to this hiatus in perception? Do school personnel and parents actually know about such relationships in today's labor market? Why do so many minority students appear to be unaware that, if they enter college, the benefit (occupation-wise at least) depends especially strongly upon completing the full four years or more?

Finally, will swift growth of 2-year college enrollments (only about one in three junior college entrants transfer to senior college) widen the gap between occupational expectations and their probable outcomes?

We turn now to a summary of the research findings.

Section XIII

Summary of the Findings

Let us summarize the major findings.

Long-term steady escalation of educational attainment has reached a point at which about 4 in 10 of all college age youth in the mid to late 1960s entered college. All available evidence appears to concur that this proportion will continue to rise in the immediate future. College has become the passport to better opportunities in later life, and it seems virtually certain that this will be even more the case ten years hence.

Quite recently there appears to have been appreciable lessening of financial barriers to college attendance. In an earlier period, from the late 1930s to the late 1950s, there was no significant change in college entrance by socioeconomic background. It is especially significant that very few recent high school seniors perceived lack of money (or lack of academic ability either) as the major obstacle to higher education.

The chief agent in this democratization of higher education appears to be the "open door" public 2-year college. In very recent years the growth of such schools appears to have accelerated. All signs point toward further expansion in the years ahead. Recent increases in available student aid, plus increases in purchasing power for lower income groups, have also favored democratization of higher education since the late 1950s.

In general, although the classic major deterrents to college attendance (socioeconomic status and academic ability or achievement) appear to be crumbling, they still retain in considerable measure their earlier force. The further erosion of these deterrents would seem to depend in large part on the highly probable further expansion of 2-year public colleges, further increases in disposable income, and continuing or increasing supplies of student aid. We suggest that expansion of 2-year colleges is the most significant of these future possibilities, representing not only massive indirect or hidden student subsidies, but also offering less able and less ambitious students a higher educational experience which is commensurate with their talents, and which also offers them the technical or vocational training which so many appear to desire. Just as in an earlier era incorporation of non-college preparatory programs into the curricula of the emergent public high school democratized secondary schooling, so the multi-purpose 2-year college appears to be democratizing higher education.

If the immediate future follows the pattern of the recent past, and finances and academic prowess per se continue to figure less prominently in college planning and attendance, then the center of concern focuses on other deterrents. The chief of these would seem to be failure to enter the college preparatory curriculum in the freshman year of high school, an unfavorable academic or social self-image (and usually both at once) relative to classmates, and high school guidance counseling against college attendance. Each of these factors appears to be at least as strong a barrier to college entrance, even at 2-year colleges, as the classic barriers of lack of funds and a low level of objectively measured ability or achievement. Furthermore, each of these factors appears to discourage large numbers of able students from entering college, though the funds to finance college and colleges willing to accept such students are increasingly available. The determinants of curricular choice, guidance advice, and relative self-image apparently require further study and evaluation, precisely because so little is known about them.

There is little evidence that racial minority students have approached more closely, in recent years, the college entrance rates of majority youth. The long-term historical discrepancies in educational attainment appear to be at least maintaining, and very possibly increasing, their past magnitudes. There is the finding that as increasing proportions of minority youth have entered high school there has not been a commensurate increase in proportions of entrants graduating. For majority youth the trend has been for more entrants to graduate. For the predominantly low achievement minority students (and for less able majority ones as well) there is evidence that the barrier to the high school diploma increasingly centers, not in reaching the senior year of high school, but in graduating from high school. It is important to note that being above the modal age for high school seniors is strongly associated with failing to graduate from high school. Over-age students who do graduate are less likely that younger ones to enter college, and most who do enter select 2-year colleges. Over-age seniors, as compared to younger ones, are less able students with less educated parents, and are less likely to plan on college. They are particularly prevalent in the racial minority population.

Our overall conclusion is as follows: The higher educational establishment appears to be reshaping itself to accomodate students with a wide range of abilities, many levels of aspiration, and various socioeconomic backgrounds. In considerable measure students are embracing these new opportunities. Nevertheless, a number of factors implicit in the high school years (among which simple lack of interest in college is very prominent), largely unaffected by changes in higher education per se, discourage many students from entering college. The principal waste appears to relate to high ability students failing to plan on or enter college. For these students, in the main racial majority ones, mistaken self-estimates, improper choices of high school program, and questionable guidance advice seem to represent the heart of the problem.

For the minority students, deterrents to college are compounded. If lack of money is not a major deterrent, nevertheless pressures to take a job following high school graduation appear to be particularly strong. But it is their generally low level of ability or achievement that appears to be the principal obstacle, not only in terms of obtaining the high school diploma, but also in terms of limiting the range of choice of colleges. Furthermore, the three deterrents we have emphasized in this report, negative high school counselling, non-college preparatory curricula, and a negative relative self-image appear to discourage minority students from planning on college very nearly as much as is the case for majority ones. For these three deterrents, the mitigating factor appears to be that they operate within, rather than across, racial groups. Very much the same may be said for the deterrents of low academic performance and low socioeconomic status. Minority and majority students plan or do not plan on college largely in terms of identical predictive variables, but they do so relative to the distributions of these variables within the racial groups. If minority students were to form post-high school plans on the same basis as majority ones, hardly any would plan on college.

Inferentially, we conclude that it is the separateness of racial cultures, the actual extent of racial segregation in the nation's schools and neighborhoods, that in considerable measure permits minority students to plan on and enter college to the extent they do. Our data on school integration and college planning, however imperfect, support this inference. Finally, it is the "open door" public college, plus the primarily Negro colleges attended by over half of all Negro collegians, which would seem to make these plans viable ones, by and large. Regional availability of such schools is a critical factor.

Low income families are nearly as likely as high income ones to send one child to college. However, low income families have far larger numbers of college-age children. Consequently, far fewer of the low income children reach college. If family size by income should become more nearly the same as time passes, the proportions of low and high income children reaching college should become more nearly the same. All evidence points to the particular importance of the 2-year college to lower-socioeconomic children.

Children tend to duplicate the educational experience of parents, including the tendency for children of "part-college" educated fathers to select 2-year rather than 4-year colleges. We anticipate large future increases in "part-college" parents, and consequently increasing prominence of the "open door" college in future democratization of higher education.

Depending on sex and race, about 4 to 6 in 10 1965 high school seniors appeared to have generally realistic occupational expectations. These were the seniors who planned on college and aspired to the full four years or more. All other students of all four sex-race groups tended to expect upper white collar employment to a considerably greater extent than appears likely--given the jobs actually held by younger age cohorts who failed to enter college or, if they did enter, failed to graduate. Minority students appeared to benefit least, occupation-wise, from attending college for a limited time. Since minority students enter two-year colleges (when available) more frequently than do majority ones, and only about one in three 2-year college entrants transfer to senior college, there would seem to be real questions relating to the later life benefits the "junior college movement" might confer upon minority youth. Why so many students are unrealistic about relationships between educational attainment and probable employment is not clear. We suggest that the adults the students converse with at home and at school may be unrealistic as well.

Section XIV

Implications of the Findings for Future Research

We assume the following six propositions:

1. Students, parents, educators, and legislators today have virtually reached a consensus that all youth able to profit by college should have the chance to attend.

2. All groups appear to feel that most youth can profit from college, assuming that colleges offer a variety of programs suitable to a variety of student talents and aspirations.

3. Employers select the better educated job applicants when able to do so--and especially so for better jobs--whether or not the education is necessary to perform satisfactory work.

4. We conclude therefore that it is increasingly imperative that obstacles to college entrance should be eliminated.

5. Institutional developments at the college level, plus increased direct and indirect student aid, appear to be effectively lessening economic and academic barriers to college--and further liberalization appears to be in prospect.

6. The most significant current obstacles to college--and especially projected future ones--appear to be located in the pre-college years, and consequently yield little to changes in the higher educational establishment.

We therefore suggest the following seven lines of investigation:

1. What are the determinants of entering particular academic programs early in high school? How early in a child's schooling does he enter upon a particular educational "track"? Why do many able students fail to enter college preparatory programs? What is the role of guidance counseling in curricular choice? The role of parents?

2. What are the determinants of post-high school advice given to students by high school guidance counselors? Why are many able students advised against college--and why does such counseling so frequently run counter to apparently reasonable parental aspirations for students? Why does guidance advice offered to students reflect socioeconomic class, quite apart from ability, as much as it reflects measured ability? Is class a desirable criterion for advice?

3. Just how and when does a student form his academic self-image relative to classmates? How realistic is this image? Apart from classmates, how instrumental are teachers and guidance counselors in the formation of the self-image? Is birth-order a significant determinant of self-image? How stable is the self-image over time?

4. What would be the probable effects of progressive racial desegration of secondary schools on the post-high school aspirations of minority groups? What would be the effects of differing groupings by ability in high schools primarily attended by racial majority students?

5. Why do roughly one in twelve of 12th grade entrants fail to graduate from high school? If the one in five of the age cohort who currently fail to reach the 12th grade were to do so, how likely

would they be to graduate--assuming that requirements for the high school diploma remained unchanged? To what extent, and how,is over-age per se a determinant of 12th grade drop-out?

6. Should the high school diploma remain a requirement for entrance into vocational programs at 2-year public colleges? Should post-high school technical training at public colleges be extended to include even the least academically able student?

7. Can the probability of decreasing family size (representing fewer children to educate) at lower levels of the family income distribution be determined with some measure of reliability? If so, and if the extent of the decrease could be roughly estimated, what would be the likely effects on college-going rates at lower income levels?

These seven research areas are precisely the ones for which existing data permit only limited conclusions. They are also the areas for which our findings specify mounting significance in the years ahead.

Overall, we feel that there is strong evidence for the need of a reassessment of guidance counseling in the nation's schools. The guidance counselor is in a pivotal position:

1. To modify a student's mistaken academic self-assessment.

2. To counter unfortunate home influences on post-high school aspirations and plans.

3. To steer students into programs commensurate with their talents at the start of high school.

4. To make certain that students are clearly aware of existing relationships between educational attainment and occupational probabilities.

For whatever complex reasons, our evidence suggests that counselors, in many instances, are relatively ineffectual in relation to these major aspects of their jobs. There is further evidence that in many instances the advice given to students is based on questionable criteria. If our findings are valid, it would seem imperative to study more closely the professional practices of guidance counselors, and to determine more explicitly the criteria upon which they base their advice.

Earlier research has presented strong evidence of increasing "professionalization" of guidance counseling. It would seem important to know to what extent such "professionalization" includes adoption of uniform standards and criteria upon which guidance advice is based (uniform, that is, within the limits set by differences between particular schools and school systems). Finally, it would seem important to know whether the uniform standards and criteria (if such exist) are discriminatory or equalitarian, are reasonable or unreasonable from the points of view of parents and the students themselves, and so forth. Finally, if there are uniform standards and criteria, who determines them--and how, and why?

APPENDIX A

Appendix A

Principal Data Sources for This Report

As we point out in the text of this report, our data derive from many sources. Furthermore, we turned to a number of different sources for each of the topics separately discussed. Some of the data were collected and tabulated specifically for OE Project No. 6-10-039. Others represent secondary analysis of existing data. Yet others represent existing statistics, past and present, utilized largely in their original form.

The following list presents our major data sources for this summary:

Sources of historical data

1. James H. Blodgett's Report on Education in the United States at the Eleventh Census: 1890, U.S. Government Printing Office, 1893.
2. Educational age cohort statistics from the 1940 and 1960 Decennial Censuses of the United States.
3. Educational age cohort statistics from Current Population Surveys of the Census Bureau for various years.
4. Office of Education school retention rate data as reported in the Statistical Abstract of the United States.
5. Office of Education data on growth of 2-year versus 4-year colleges, public and private colleges, and on growth of post-graduate education, as reported in the Statistical Abstract of the United States.

6. Original and secondary tabulations of data on college plans of parents and children, derived from various surveys on file at the Roper Public Opinion Center at Williams College, Williamstown, Mass.
7. Information on the growth of 2-year colleges in certain "key states," such as California, Washington, and Florida, derived from various specific publications of the state educational departments.

Sources of more recent data

8 The 1959-1960 and 1965-1967 Census Bureau surveys of college plans of high school seniors, and follow-ups of the seniors the academic year after high school graduation, including published and unpublished materials.
9. Secondary analysis of the 12th grade computer tapes from the Office of Education's Equality of Educational Opportunity study (James Coleman, et al.)
10. College cost, student aid, and college financing data from Office of Education sources--chiefly from Students and Buildings (Joseph Froomkin, et al.) OE-50054, May 1968.
11. Data on Negro colleges, and on regional availability and growth of 2-year public colleges, from the published volume by the present authors, Negro Higher Education in the 1960s (Frederick A.Praeger, New York, 1968). The 2-year college data derived partially from private communications with personnel at the American Association of Junior Colleges,

and are supplemented by data reported by Edmund S. Gleazer, Director of that organization, in the Office of Education publication, American Education (December-January, 1968).

12. Information on high school guidance counseling and its determinants, and on high school curricular choice and its determinants, derived from Cicourel and Kitsuse, The Educational Decision Makers, The Bobbs-Merrill Company, Indianapolis, Indiana, 1963.

13. Background materials on "relative deprivation theory" from a number of sources, including: Stouffer, et al., The American Soldier; James Davis, "The Campus as a Frog Pond: An Application of the Theory of Relative Deprivation to Career Decisions of College Men" (The American Journal of Sociology, July, 1966); Charles Werts and Donivan Watley, A Student's Dilemma: Big Fish-Little Pond or Little Fish-Big Pond, (National Merit Scholarship Research Report, Vol. 5, No. 3, 1969); Edith Greer and Richard Harbeck, What High School Pupils Study, (OE-33025, 1962); and Mary Engel, "The Stability of the Self-Concept in Adolescence," (The Journal of Abnormal and Social Psychology. March, 1959).

14. Discussion of prospective racial distributions in selective 4-year colleges by S.A. Kendrick in "The Coming Segregation of our Selective Colleges," (The College Board Review, Winter, 1967-68).

15. Data on very recent proportions of first-time freshmen entering 2-year and 4-year colleges, deriving from the Office of Education's Opening Fall Enrollment in Higher Education, 1967.

16. In general, we have found the Merit Scholarship Research Reports particularly rewarding, not only in terms of "relative deprivation theory," but also for such little understood areas as the possible relevance of birth-order to self-image, achievement, personality structure, and level of aspiration. See especially: Nichols, R.C., The Origin and Development of Talent, National Merit Scholarship Corporation, Research Report, Vol. 2, No. 10, Evanston, Illinois, 1966.

APPENDIX B

Appendix B

Listing of articles and tabulations, published and unpublished, deriving from the authors' research on education in the United States--including data sources for the various materials.

All of the listed items derived from research conducted in the 1960s at the Bureau of Applied Social Research, Columbia University, under the direction of A.J. Jaffe. Much of the research was supported by the U. S. Office of Education, and some by the College Entrance Examination Board.

The alphabetical divisions represent the rough subject-divisions of the items. Within the divisions an attempt has been made to place earlier research first.

There are obvious overlaps in the topics discussed and data described in the various items of the listing. Each item, however, represents a unique contribution--tabulations not presented elsewhere, more extended analysis, etc.

A. Summaries

1. Social and Economic Characteristics of the College Population and Others with some College Training, by A. J. Jaffe and Walter Adams. Summary report on OE Cooperative Research Project No. 1269, Bureau of Applied Social Research, Columbia University, 1965. This summary consists of analyses and tabulations for such topics as:

   1) Long-term trends in educational attainment.

   2) Post-high school aspirations of children, and of parents for children, down the years.

   3) Characteristics of 2- and 4-year college entrants.

   4) Output per worker, change in employment, and educational attainment, 1950 and 1960.

   5) Projections of educational attainment.

   The data derive from many sources, including: a) Decennial Censues; b) surveys on file at the Roper Public Opinion Center; c) 1959-1960 Census survey of high school seniors, and follow-up of these seniors.

2. "Caste, Class, Relative Deprivation, and Higher Education," by Walter Adams. A long unpublished article which presents a discussion of the following, chiefly deriving from Census historical statistics, Coleman data, and the 1959-1960 and 1965-1967 Census studies:

1) Age-cohort analysis of escalation in educational attainment down the years.

2) Analysis of persisting lag in attainment for non-whites and lower socioeconomic whites.

3) The rise of the "open door" college.

4) Characteristics of non-entrants, 2-year entrants, and 4-year entrants.

5) Extent of college desired by various groups of students.

6) The role, present and future, of the 2-year college for disadvantaged, racial minority, and less able youth.

Presents basic detailed tabulations, in addition to many summary text tables.

Detailed appendix tables include a Current Population Survey age-cohort analysis of educational attainment for whites, non-whites, and negroes (late 19th century to near present) at all levels of schooling.

3. Section 2 ("Aspirations and Demand for Post-Secondary Education in the Mid-1960s") of forthcoming Office of Education report by Joseph Froomkin (Office of Program Planning and Evaluation, Office of Education). This section presents extensive analysis of, and statistics from, the 1959-1960 and 1965-1967 Census studies of high school seniors' plans and their post-high school graduation behavior. Emphasis is on socioeconomic factors in college entrance, the lessening significance of purely financial barriers, 2-year versus 4-year college

entrants, and ways in which college is financed. Long-term and short-term trends (illustrative charts) in educational attainment provide perspective. Some supplementary statistics from the Coleman secondary analysis are included, as well as supplementary Project Talent findings and tabulations. Parental aspirations for children in recent years (college or no college, and extent of college) are presented by sex and race of student, deriving from the Census surveys.

Dr. Froomkin has digested a considerable portion of the higher educational data and findings of OE 6-10-039.

4. American Higher Education in Transition...a review of long- and short-term historical trends, the current situation, and future probabilities and their major determinants, by A. J. Jaffe and Walter Adams. The present Summary Report, submitted April 1969, for OE 6-10-039. This summary is the closest approximation to an"overview" of major findings from the research itemized on the present list. The report is essentially a review of the findings and their implications for the future, plus listing of areas that appear to require further research.

B. Historical Trend Analyses

5. "Trends in College Enrollment," by A. J. Jaffe and Walter Adams. Reprint No. 409, Bureau of Applied Social Research, Columbia University. Originally published in The College Board Review, Winter, 1964-65. The basic data and analysis (including charts and detailed race-sex Decennial Census age-cohort tabulations) of educational attainment from the late 19th century to the 1950s. This article is best read in conjunction with later analyses of data from other sources. which attempt to bring the historical series more nearly up-to-date.

6. "College Education for U. S. Youth: The Attitudes of Parents and Children," by A. J. Jaffe and Walter Adams. Reprint No. 302, Bureau of Applied Social Research, originally published in The American Journal of Economics and Sociology, Vol. 3, No. 3, pp 269-284, July 1964. College plans and attendance, late 1930s to late 1950s, of high school students. Student plans are compared with parental aspirations for the students. Trend data are presented by socioeconomic class. This article presents the basic statistics which, when combined with more recent survey data, allowed us to pin-point very recent changes in trends. Data derive from surveys on file at the Roper Public Opinion Center, Williamstown, Massachusetts.

7. "Socio-Economic Status and College Plans, 1939-1959 and 1959-1965." Submitted as part of progress report on OE 6-10-039. The data derive from the 1959 and 1965 Census surveys of post-high school plans of 12th graders, and from a number of earlier studies of planning on file at the Roper Public Opinion Center at Williamstown, Mass. The major thesis bears on the apparent decrease in the relevance of socioeconomic factors (and especially the economic factor) to college planning in very recent years--a decrease which did not occur in the 1939-1959 span of time.

C. The Two-Year Public College

8. "Who are the Two- and Four-Year College Entrants?" Unpublished article which presents the full analysis and detailed tabulations on characteristics of 2- and 4-year college entrants, 1960. The data derive from special Census Bureau tabulations (largely unpublished) for OE Cooperative Research Project No. 1269. The findings are summarized briefly in Folger and Nam (Education of the American Population, 1960 Census Monograph, U. S. Government Printing Office, 1965), and an abridged version of this article appears as a section of the summary report on OE 1269 (Bureau of Applied Social Research, Columbia University, 1965). This article is best read in conjunction with later analyses and tabulations which compare 1959-1960 findings with those of the parallel Census surveys in 1965-66.

9. Education of the American Population, by John K. Folger and Charles B. Nam, a 1960 Census Monograph, U. S. Government Printing Office, Washington, D.C. Pp 63-65 of this volume summarize findings concerning 2-year vs 4-year college entrants, 1960, deriving from special Census Bureau Tabulations prepared for A. J. Jaffe for OE Cooperative Research Project No. 1269.

D. Education and Technology

10. "Educational Attainment and Modern Technology -- a Brief Note," by A. J. Jaffe and Walter Adams. Published in The Statistical News, December 1964, Vol. 16, No. IV.
This research memo considers relationships between technological innovation, changes in employment, and changes in educational attainment of workers, 1950 and 1960. Decennial Census educational data, combined with industrial data on output-per-worker and employment changes, formed the basis for the tabulation presented and discussed in this memo.

11. Item 10 (as well as the following item) should be read in conjunction with the fuller treatment of the topic in "Education and Automation" by A. J. Jaffe, Reprint A-436, Bureau of Applied Social Research, Columbia University (originally published in Demography, Vol. 3, No. 1, 1966, pp 35-36).

12. "Education, Employment, and Technological Change," by Walter Adams. Paper presented at the annual meeting of the American Statistical Association, Philadelphia, Pa., September 1965--and published in the 1965 Proceedings of the Association.
An exploration of relationships and trends for the three variables in the title. For education per se, analysis and detailed tabulations of educational attainment from about 1880 to the early 1960s are presented, deriving from age-cohort tabulations from Decennial Censuses and Current Population Surveys.

E. Negro Higher Education

13. Negro Higher Education in the 1960s, by A. J. Jaffe, Walter Adams, and Sandra G. Meyers. Praeger Special Studies in U. S. Economic and Social Development, Frederick A. Praeger, New York, 1968.
The "hard-cover" report of 1965 surveys of the primarily Negro colleges and the students they enroll, including supplementary materials on such topics as the present and probable future roles of the 2-year public college in Negro higher education, projections to 1975 of Negro high school graduates in 14 southern states, etc. Text tables, charts, detailed appendix tables. For the Negro colleges, analyses are both historical and current. Central concerns are the future of these colleges, the sorts of lives for which they seem to prepare their students, the major "problem areas" for the students, and the implications for educational policies and programs.

14. "The Sharply Stratified World of the Negro Colleges," by A. J. Jaffe, Walter Adams, and Sandra G. Meyers. Reprint A-482, Bureau of Applied Social Research, Columbia University; originally published in The College Board Review, Winter 1967-68, No. 66.

This article, plus detailed tables, derives from the 1965 study by the authors of primarily Negro colleges and the students they enroll. It extends an analysis in the published report of that study, Negro Higher Education in the 1960s (Frederick A. Praeger, New York, 1968). The topic is the extent of stratification, by socioeconomic level and ability, of students attending academically "better" and "poorer" Negro colleges. Characteristics of students entering 2- and 4-year integrated colleges offer further perspective. The emphasis is on the probable effect of such stratification in later life for the various student groups at the various college groups.

F. Determinants of Post-High School Behavior

15. "The Best Way for Young People to Get Ahead in Life." Submitted as part of progress report on OE 6-10-039. Analysis and data on the relationships between the perceived practical value of college, post-high school plans of 12th graders, and the extent of higher education desired by the "college-planners." Data from the 1965 Census survey of high school seniors. Harris survey findings of parents'vs seniors' evaluations of college are presented to supplement and help interpret the Census survey findings.

16. "Main Reason for Not Planning On, or Knowing About, College Attendance....for all high school seniors, for boys and girls, for whites and non-whites, for metropolitan and non-metropolitan residents, and for richer and poorer seniors." Research notes and tables submitted as part of progress report on OE 6-10-039. Data are from the Census 1965 survey of high school seniors.

17. "Predictors of College Plans of High School Seniors, Fall, 1965." Submitted as part of progress report on OE 6-10-039. An extensive analysis (plus tabulations) for sex-race groups of high school seniors of relationships between parental educational attainment, parental post-high school aspirations for seniors, and the post-high school plans of the seniors. The analysis considers those who do and those who do not plan on college, and also considers the kind (2-year vs 4-year) of college planned on and the extent of higher education desired (some college, baccalaureate, graduate or professional school). Data derive from the 1965 Census survey of high school seniors.

18. "Ability, Class, Guidance Counseling and Post-High School Plans," by Walter Adams. Unpublished article and detailed tabulations, deriving from secondary analysis of the 12th grade Coleman tapes. A few additional tables are being run, and will be added to the completed ones. The relationship between school and home advice offered to seniors is considered, and the senior's response to the two types of influence.

19. "Academic Self-Image as a Strong Determinant of College Entrance and Adult Prospects...relative deprivation theory applied to high school curriculum choice," by Walter Adams. Forthcoming article in The American Journal of Economics and Sociology. This article explores the relationship between the high school senior's academic self-image relative to classmates, his high school curriculum, and the senior's post-high school plans, controlling for objectively tested ability and parental educational attainment. The data are from the Coleman 12th grade tapes, supplemented by other existing research. Summary text tables, plus detailed appendix tables.

G. Financing College

20. "The Cost of College -- Who Pays the Bills?" by Walter Adams. Research findings and summary tables published in The New York Statistician (September-October, 1968, Vol. 20, No. 1, pp 3-5). This research memo combined existing OE data on the cost of educating undergraduates, student expenses at various kinds of colleges, and public, private, and personal funding of these expenses, with information on the roles of family money, earnings, scholarships, loans, etc. in the student's college budget. The latter data derived from the 1966 Census follow-up of 1965 high school seniors, and yield findings for richer and poorer students and students at more and less expensive public and private colleges.

H. Additional Tabulation Series

In addition to the specific analyses and tabulations so far described, we have on file numerous detailed tabulations, some of which are, but many of which are not, included in the published and unpublished articles. These tabulations, many of which should be included in a full report of the research, fall into three principal groups according to data source and general area covered, as follows:

21. Tabulations on characteristics of college planners and non-college planners from the Coleman study 12th grade tapes. For each of 4 sex-race groups of 1965 high school seniors the independent relationships of each of about a dozen student variables to post-high school plans are presented, in each instance controlling simultaneously for parental education and tested student academic prowess. The independent variables represent those from the student questionnaire most strongly related to post-high school plans. Tabulations on extent of higher education desired supplement the 4-variable tables.

22. An integrated set of tables presenting the financial findings from the 1965-67 Census Survey of high school seniors and follow-up of these seniors. Variables include: a) family income of student; b) type of college entered; c) tuition and fees of college entered; d) student sources of college financing by type of college, cost of college, and family income.

23. A series of tabulations paralleling (to the extent possible) tables presented in Series Census-ERS (P-27) No. 31, 1962-- plus one table from ERS (P-27), No. 30, 1961. These two Census publications present major tabulations from the Census 1959-1960 survey and follow-up of high school seniors, and our tabulations present parallel tables for the similar 1965-67 studies.

I. Family Composition

24. Some analysis and some statistical materials have been completed which attempt to relate family structure (number of children), family income, educational attainment of parents, and college entrance for the children (2-year vs 4-year college as well as college/no college). The focus of interest is possible changes in the initial three of these variables (the independent variables) in the immediate future, and the possible effects, for various population groups, upon the fourth variable (the dependent variable). The chief changes considered are possible dropping fertility rates at lower socioeconomic levels, rising parental educational attainment at these levels, and rising purchasing power at lower levels. To date, this material has only been summarized in Item 4 of this listing, American Higher Education in Transition, representing Chapter XI in the present summary report.

APPENDIX C

Appendix C

Detailed Statistical Tables

Introductory Remarks

The tables in this appendix represent only a selected sample from a far larger total of completed tabulations. This is especially true for data from the secondary analysis of the Coleman Study. We selected tables relevant to topics least documented in the text. We also selected tables which introduce variables least documented in other research, and ones which, moreover, have very strong relationships to college plans and eventuations. We omit separate tabulations for each sex or race group in instances where little is added to the findings by so doing. We omit tables for many variables strongly associated with college plans and eventuations--variables which lie in the same substantive dimension as other ones we do present, and for which findings are parallel. In most instances such omitted variables receive mention in the text.

Many of the tables presented here derive from a number of independent articles on specific research areas and findings, and so do not present precisely identical "stylings." We have, however, made the "styling" consistent wherever differences could lead to serious confusion or ambiguity.

The tables are largely self-explanatory, but we should discuss briefly our handling of "non-response" and "don't know" or "don't remember" responses--for the Coleman data. The following table presents such responses for key variables for each of the four sex-race groups of seniors. Not all of the listed variables appear in the selected appendix tables, but we include them here, since "non-response" seniors, and those responding "don't know" or "don't remember", present consistent and significant relationships in and of themselves.

Variable	Per cent non-ascertainable (includes "no answer", plus "don't remember" or "don't know", when so designated).			
	Majority male	Majority female	Minority male	Minority female
	%	%	%	%
Verbal ability	0.0	0.0	0.0	0.0
Relative brightness	2.6	1.7	10.4	6.6
High school curriculum	1.0	0.8	3.5	3.4
Guidance advice	2.5	1.6	11.1	7.0
Desired education	0.8	0.5	1.9	0.9
Post-high school plans	0.7	0.6	2.3	1.4
Amount of childhood family reading aloud	19.4*	17.3*	23.2*	23.6*
Number of school changes	0.4	0.2	1.4	0.8
Social rating in class	3.7	3.2	10.6	7.4
Expected occupation	15.2*	16.9*	18.4*	22.2*
Father's education	8.6*	8.4*	25.1*	24.5*
Mother's education	6.8*	4.2*	15.6*	11.8*
Father's occupation	3.6*	3.4*	13.7*	14.9*
Mother's post-high school desires for senior	7.6*	5.4*	8.9*	4.7*

*Includes, and principally consists of, "don't remember" or "don't know".

As can be seen, non-response represented no particular analytic problem for post-high school plans and desires, nor for verbal ability and high school curriculum. For mother's education, however, our second control variable, there were many "don't know" responses. We determined that the "don't know" respondents closely resembled the students with least educated mothers in regard to student educational plans and aspirations, so in most tables they are included in the "eight grades or less" category. An exception is the table where guidance advice is the independent variable, since the relationship between school advice and parental education is a critical one. We simply note that the identical relationships pertain whether "don't know" is included or excluded from the tabulation. For the senior's expected occupation, the considerable proportions of "don't knows" are separately tabulated.

Apart from the "don't know" and "don't remember" categories, we omit tabulations of simple non-response (in most instances of small magnitudes) for the following reasons:

1. We wished to keep the tables as uncluttered as possible.

2. The "non-response" seniors on all variables, and for all sex-race groups, had low levels of educational aspirations and plans.

3. For each variable, such seniors possessed other characteristics associated with low levels of aspiration and planning.

4. In sum, since the non-response seniors on all variables were similar or identical seniors, our findings pertained whether we tabulated them or not. Their inclusion or exclusion made only minor distribution changes.

In point of fact, what we have noted for non-response in 1 through 4 above pertains throughout for "don't know" and "don't remember" responses.

For example, students who "don't know"their father's occupation tend to be less able students, students with relatively low estimates of relative brightness and social status in class, and students who do not plan on college. For whatever reasons, failure to answer questions, imperfect recall, and uncertainty are consistently associated with low aspiration and planning levels.

Quite significantly, in every instance but one minority students have higher non-response, poorer recall, and less certainty than majority ones. Such ethnic differences are particularly large for variables relating to the senior's parents--for which variables, moreover, particularly large proportions of seniors are uncertain. Presumably what we have is inferential evidence of the loose structure of minority, as compared to majority, families--plus evidence of the negative effect of such looseness upon self-image, aspiration,and plans. One in four of minority seniors do not know their father's educational attainment, whereas this is true of only one in twelve of majority ones--and the "don't knows" in both instances have low college-planning rates.

We also note that on questions of fact, such as number of school changes, high school curriculum, or childhood reading aloud, the non-response differences by race are not large ones--but on questions of self-image, such as relative brightness or social status, or questions involving interpersonal relationships, such as guidance advice, racial differences are indeed large.

Part I

Decennial Census and Current Population Survey Historical Age Cohort Tabulations of Trends in Educational Attainment

Table 1

Educational attainment of various age cohorts of whites and non-whites, total United States

		Years of school completed and race								
		Grammar school								
Age cohorts, March, 1967	Approx yr H.S. graduation	0-7 years			8 years			0-8 years		
		White	Non-white	Negro	White	Non-white	Negro	White	Non-white	Negro
		%	%	%	%	%	%	%	%	%
18-19	1965-66	2.3	6.5	7.0	2.2	4.8	5.0	4.5	11.3	12.0
20-24	1962	3.1	7.4	7.6	3.5	6.2	6.2	6.6	13.6	13.8
25-29	1957	4.2	9.4	10.2	4.9	7.1	7.3	9.1	16.4	17.5
30-34	1952	6.0	14.2	14.9	6.5	6.7	6.7	12.5	20.9	21.6
35-44	1944-45	9.1	24.4	25.2	9.2	12.6	13.3	18.3	37.0	38.5
Age cohorts, April, 1947		0-6 years			7-8 years			0-8 years		
25-29	1938	5.8	35.7	--	16.6	20.9	--	22.4	56.6	--
30-34	1933	7.2	34.8	--	21.8	28.7	--	29.0	63.5	--
35-44	1924-25	10.3	45.6	--	30.7	27.9	--	41.0	73.5	--
45-54	1914-15	18.4	61.3	--	37.6	21.2	--	56.0	82.5	--
55-64	1904-05	26.5	64.0	--	39.7	20.6	--	66.2	84.6	--
Age cohorts, April, 1940										
55-64	1897-98	30.9	75.0	--	41.0	15.7	--	71.9	90.7	--
65 and older	1896 and earlier	36.6	85.8	--	42.1	9.4	--	78.7	95.2	--

Sources: Current Population Reports: "Educational Attainment: March 1967," Series P-20, No. 169, February 9, 1968, Table 1. "Educational Attainment of the Civilian Population, April 1947," Series P-20, No. 15, May 4, 1948, Table 1.

Page 2 of Table 1

Educational attainment of various age cohorts of whites and non-whites, total United States

Years of school completed and race
High School

Age cohorts, March, 1967	Approx yr H.S. graduation	9-11 years White	9-11 years Non-white	9-11 years Negro	12 years White	12 years Non-white	12 years Negro	9-12 years White	9-12 years Non-white	9-12 years Negro
		%	%	%	%	%	%	%	%	%
18-19	1965-66	--*	--*	--*	--*	--*	--*	--*	--*	--*
20-24	1962	14.6	29.9	31.3	43.4	38.4	39.3	58.0	68.3	70.6
25-29	1957	16.0	27.7	29.2	44.4	38.3	38.9	60.4	66.0	68.1
30-34	1952	17.4	26.0	27.3	43.3	35.5	35.1	60.8	61.5	62.4
35-44	1944-45	18.5	26.5	27.9	34.7	24.2	22.9	53.2	50.7	50.8
Age cohorts, April, 1947										
25-29	1938	23.1	21.1	--	39.1	16.1	--	62.2	37.2	--
30-34	1933	22.2	16.3	--	33.3	13.5	--	55.5	29.8	--
35-44	1924-25	19.6	13.3	--	23.1	8.6	--	42.7	21.9	--
45-54	1914-15	16.3	7.6	--	15.7	5.0	--	32.0	12.6	--
55-64	1904-05	11.2	8.4	--	13.2	3.6	--	24.4	12.0	--
Age cohorts, April, 1940										
55-64	1897-98	10.5	4.4	--	10.0	2.6	--	20.5	7.0	--
65 and older	1896 and earlier	7.4	2.3	--	7.9	1.3	--	15.3	3.6	--

*The incidence of grade retardation is sufficiently high, especially for non-whites, to preclude meaningful analysis beyond grammar school.

Page 3 of Table 1

Educational attainment of various age cohorts of whites and non-whites, total United States

Years of school completed and race

College and university

Age cohorts, March, 1967	Approx yr H.S. graduation	13-15 years			16+ years			13+ years		
		White	Non-white	Negro	White	Non-white	Negro	White	Non-white	Negro
		%	%	%	%	%	%	%	%	%
18-19	1965-66	--*	--*	--*	--*	--*	--*	--*	--*	--*
20-24	1962	26.8	15.2	13.7	8.6	2.8	1.8	35.4	18.0	15.5
25-29	1957	14.9	9.1	9.2	15.5	8.3	5.4	30.4	17.4	14.6
30-34	1952	12.3	10.1	10.2	14.6	7.3	5.9	26.9	17.4	16.1
35-44	1944-45	11.0	6.7	6.2	17.7	5.7	4.6	28.7**	12.4**	10.8**
Age cohorts, April, 1947										
25-29	1938	9.9	3.5	--	5.9	2.7	--	15.8**	6.2**	--
30-34	1933	8.4	2.9	--	7.0	3.9	--	15.4**	6.8**	--
35-44	1924-25	8.7	2.4	--	7.7	2.4	--	16.4	4.8	--
45-54	1914-15	6.7	1.9	--	5.1	3.0	--	11.8	4.9	--
55-64	1904-05	5.3	2.1	--	4.0	1.3	--	9.3	3.4	--
Age cohorts, April, 1940										
55-64	1897-09	4.2	1.3	--	3.6	1.0	--	7.8	2.3	--
65 and older	1896 and earlier	3.3	0.7	--	2.8	0.6	--	6.1	1.3	--

*The incidence of grade retardation is sufficiently high, especially for nonwhites, to preclude meaningful analysis beyond grammar school.

**Age cohorts most affected by the Great Depression, and by World War II, with respect to college attendance.

Table 2A

High school and college retention for various age cohorts of white and non-white men and women, total United States

White Males

Age cohort 1940 Census	Age cohort 1960 Census	Approx yr H.S. graduation	% age cohort H.S. graduates Census 1940	% age cohort H.S. graduates Census 1960	% H.S. graduates entered college Census 1940	% H.S. graduates entered college Census 1960	% college entrants graduated Census 1940	% college entrants graduated Census 1960
	20-24	1955		64.8				
	25-29	1950		62.7		46.5		53.6
	30-34	1945		56.2		48.0		58.5
	35-39	1940		55.8		44.2		56.8
	40-44	1935		49.9		41.2		52.0
25-29	45-49	1930	38.4	41.4	38.2	43.6	50.6	51.2
30-34	50-54	1925	33.3	34.7	45.3	49.2	53.6	51.5
35-39	55-59	1920	26.3	27.8	49.2	52.3	54.2	51.0
40-44	60-64	1915	23.2	23.8	48.8	53.0	51.3	47.8
45-49	65-69	1910	20.5	20.0	49.4	54.2	51.3	47.0
50-54	70-74	1905	18.4	17.4	50.0	54.9	53.3	46.6
55-59	75+	1900	16.6	16.0	49.0	53.3	53.3	47.5
60-64		1895	15.8		50.4		53.8	
65-69		1890	12.4		51.9		53.7	
70-74		1885	12.6		51.9		53.6	
75+		1880 & earlier	10.9		51.8		53.2	

Page 2 of Table 2A

High school and college retention for various age cohorts of white and non-white men and women, total United States

White Females

Age cohort		Approx yr H.S. graduation	% age cohort H.S. graduates		% H.S. graduates entered college		% college entrants graduated	
1940 Census	1960 Census		Census 1940	Census 1960	Census 1940	Census 1960	Census 1940	Census 1960
	20-24	1955		68.1				
	25-29	1950		64.8		30.6		40.9
	30-34	1945		61.1		30.5		40.8
	35-39	1940		59.8		29.0		37.5
	40-44	1935		52.8		30.8		39.8
25-29	45-49	1930	43.4	45.1	31.3	35.9	38.9	41.2
30-34	50-54	1925	38.0	39.5	38.5	42.8	38.8	40.3
35-39	55-59	1920	31.6	32.7	40.6	45.3	38.1	38.3
40-44	60-64	1915	27.4	27.8	40.1	45.0	38.1	36.9
45-49	65-69	1910	23.5	23.7	40.7	46.0	37.9	34.3
50-54	70-74	1905	21.2	21.4	39.7	45.0	38.0	33.2
55-59	75+	1900	19.5	20.5	38.0	41.4	37.2	33.2
60-64			15.7		38.2		37.3	
65-69		1890	16.5		38.0		36.4	
70-74		1885	15.0		36.7		36.7	
75+		1880 & earlier	13.3		36.0		37.7	

Page 3 of Table 2A

High school and college retention for various age cohorts of white and non-white men and women, total United States

Non-white Males

Age cohort 1940 Census	Age cohort 1960 Census	Approx yr H.S. graduation	% age cohort H.S. graduates		% H.S. graduates entered college		% college entrants graduated	
			Census 1940	Census 1960	Census 1940	Census 1960	Census 1940	Census 1960
	20-24	1955		39.0				
	25-29	1950		36.2		37.2		39.4
	30-34	1945		29.8		39.7		46.3
	35-39	1940		26.7		37.0		45.6
	40-44	1935		21.4		37.0		45.1
25-29	45-49	1930	10.5	15.5	36.2	39.4	38.0	46.2
30-34	50-54	1925	8.6	12.4	42.8	42.5	44.4	44.2
35-39	55-59	1920	6.8	9.8	46.1	40.0	46.6	43.5
40-44	60-64	1915	6.5	8.7	48.1	47.2	46.2	44.1
45-49	65-69	1910	5.8	6.8	47.6	49.5	50.0	45.1 1/
50-54	70-74	1905	5.2	7.1	50.0	48.8	50.0 1/	46.5 1/
55-59	75+	1900	5.2	6.0	50.4	48.0	52.6 1/	46.4 1/
60-64		1895	4.9		51.3 1/		52.5 1/	
65-69		1890	3.3		52.9 1/		*	
70-74		1885	2.9		56.0 1/		*	
75+		1880 & earlier	2.3		*		*	

1/ Less than 10,000 cases in denominator

* Too few cases for statistical reliability

Page 4 of Table 2A

High school and college retention for various age cohorts of white and non-white men and women, total United States

Non-white Females

Age cohort 1940 Census	Age cohort 1960 Census	Approx yr H.S. graduation	% age cohort H.S. graduates Census 1940	% age cohort H.S. graduates Census 1960	% H.S. graduates entered college Census 1940	% H.S. graduates entered college Census 1960	% college entrants graduated Census 1940	% college entrants graduated Census 1960
	20-24	1955		44.7				
	25-29	1950		40.6		31.0		42.7
	30-34	1945		35.2		31.2		43.3
	35-39	1940		30.3		30.2		44.4
	40-44	1935		23.2		34.4		47.2
25-29	45-49	1930	13.7	17.7	34.8	38.0	36.6	49.1
30-34	50-54	1925	11.0	14.8	42.3	42.6	36.0	49.3
35-39	55-59	1920	8.6	11.5	41.3	42.8	36.9	46.5
40-44	60-64	1915	7.3	10.3	41.9	43.2	38.5	42.1
45-49	65-69	1910	6.8	8.1	41.6	45.2	40.0[1/]	41.6
50-54	70-74	1905	5.5	8.0	40.9	46.6	40.6[1/]	39.5[1/]
55-59	75+	1900	5.1	6.3	43.3[1/]	44.4	35.7[1/]	40.4[1/]
60-64		1895	4.4		42.9[1/]		*	
65-69		1890	2.8		43.9[1/]		*	
70-74		1885	2.2		*		*	
75+		1880 & earlier	1.3		*		*	

[1/] Less than 10,000 cases in denominator

* Too few cases for statistical reliability

Table 2B

Grammar school graduates entering high school and high school retention for various age cohorts of white and non-white men and women, total United States

Approx yr H.S. graduation	White males				Non-white males			
	% grammer school grads entered high school		% high school entrants graduated		% grammer school grads entered high school		% high school entrants graduated	
	Census 1940	1960 & 1962	Census 1940	1960 & 1962	Census 1940	1960 & 1962	Census 1940	1960 & 1962
1961		96.6				90.5		
1957		94.3		80.2		86.7		56.7
1950		90.6		76.0		85.8		56.7
1945		88.0		71.5		82.0		53.8
1940		87.0		72.5		79.3		54.2
1935	75.8	83.0	65.2	69.7	74.5	75.1	43.9	52.9
1930	74.0	76.6	62.8	65.9	67.2	68.6	45.0	51.0
1925	68.0	74.2	60.3	65.2	60.0	64.2	45.2	50.7
1920	60.0	67.5	59.1	63.5	53.4	59.5	46.5	51.5
1915	55.0	62.1	59.4	62.8	50.2	56.9	48.7	53.1
1910	50.6	58.2	60.8	61.5	49.1	55.6	51.2	54.0
1905	46.5	55.0	62.1	61.4	48.5	55.6	54.6	58.0
1900	43.7	51.4	62.8	64.0	47.6	54.7	55.4	59.8
1895	41.2		65.2		47.0		57.0	
1890	37.8		65.7		46.1		54.4*	
1885	34.6		67.0		45.7*		56.8*	
1880 & earlier	31.3		68.2		46.8*		61.7*	

*Less than 10,000 cases in denominator

Page 2 of Table 2B

Grammar school graduates entering high school and high school retention for various age cohorts of white and non-white men and women, total United States

Approx yr H.S. graduation	White females				Non-white females			
	% grammar school grads entered high school		% high school entrants graduated		% grammer school grads entered high school		% high school entrants graduated	
	Census		Census		Census		Census	
	1940	1960 & 1962	1940	1960 & 1962	1940	1960 & 1962	1940	1960 & 1962
1961		97.3				96.2		
1957		94.5		78.6		88.5		55.5
1950		92.6		74.9		87.5		56.7
1945		90.8		73.1		84.5		54.9
1940		88.9		74.0		81.0		54.5
1935	83.1	84.3	68.2	70.4	76.3	75.1	46.5	50.9
1930	77.2	78.8	65.2	67.0	69.8	69.8	45.3	48.5
1925	72.2	74.2	63.6	65.2	63.8	65.8	45.0	48.9
1920	65.2	67.5	62.1	63.5	57.7	60.4	44.9	49.3
1915	59.2	62.1	62.0	62.8	54.1	58.4	46.1	51.7
1910	55.3	58.2	61.0	61.5	52.8	56.3	48.0	51.7
1905	51.6	55.0	61.1	61.4	50.6	56.9	48.9	53.8
1900	48.6	51.4	61.2	64.0	49.4	52.6	48.8	55.5
1895	45.9		62.9		48.0		50.2	
1890	42.1		63.3		45.5		48.0*	
1885	38.5		63.9		41.6*		52.7*	
1880 & earlier	35.0		66.5		37.7*		37.7*	

*Less than 10,000 cases in denominator

Sources for Tables 2a and 2b: 1940 Population Census, Volume IV, Characteristics by Age, Part I: U.S. Summary, Table 18; 1960 Population Census, U.S. Summary, Detailed Characteristics, PC(1)1D, Table 174; 1960 Population Census, Educational Attainment, PC(2)5B, Table 2; Current Population Report, Series P-20, No. 121, February 1963, Tables 2 & 3(March 1962).

General note for Tables 1, 2a, and 2b: The initial section of the methodological appendix, Appendix D, discusses the construction of these tables, the reliability of the data, and the reasons for the choice of the particular data used.

Part II

Trends, 1939 - 1965, in Post-High School Plans

Table 3

Attitudes and plans of high school students toward attending college by major occupation group of head of household, 1939, 1955, 1959

1939[a]

		Attend college			
Occupation of head	Total	Total	Plan to go	Hope to go	No college or undecided
	%	%	%	%	%
Professional and managerial	100	75	62	13	25
Other white collar	100	70	56	14	31
Manual workers	100	47	32	15	53
Farmers and farm laborers	100	46	32	14	54
Unemployed and not in labor force	100	51	35	16	49
Total	100	54	40	14	46

1955[b]

		Attend college			
Occupation of head	Total	Total	Plan to go	Interested only	No college or undecided
	%	%	%	%	%
Professional and managerial	100	72	68	4	28
Other white collar	100	68	63	5	32
Manual workers	100	48	40	8	52
Farmers and farm laborers	100	45	38	7	55
Unemployed and not in labor force	100	50	43	7	50
Total	100	56	49	7	44

1959[c]

Professional and managerial	100	-	68	-	32
Other white collar	100	-	61	-	39
Manual workers	100	-	37	-	63
Farmers and farm laborers	100	-	34	-	66
Unemployed and not in labor force	100	-	43	-	57
Total	100	-	47	-	53

Table 4

High school seniors' post-high school plans, Fall 1959 and 1965, by major occupation group of head of household

Major occupation group of household head	All high school seniors			Seniors' post-high school plans			
	1959[c]	1965[d]	% change	Total	College	No college	Undecided
	%	%	%	%	%	%	%
All white collar	34	37	+3				
1959				100	66	19	15
1965				100	74	18	8
% change					+8	-1	-7
Manual and service	48	48	--				
1959				100	37	41	22
1965				100	52	36	12
% change					+15	-5	-10
Farm	9	6	-3				
1959				100	34	39	27
1965				100	44	33	23
% change					+10	-6	-4
Unemployed and not in labor force	9	9	--				
1959				100	43	37	20
1965				100	54	28	18
% change					+11	-9	-2
Total	100	100					
1959				100	47	33	20
1965				100	60	29	11
% change					+13	-4	-9

Table 5

Seniors' post-high school plans, Fall 1959 and 1965, by family income

	All high school seniors			Seniors' post-high school plans			
Family income	1959[c]	1965[d]	% change	Total	College	No college	Undecided
	%	%	%	%	%	%	%
Under $3000	19	13	-6				
1959				100	23	52	25
1965				100	46	39	15
% change					+23	-13	-10
$3000-4999:	24	17	-7				
1959				100	40	40	20
1965				100	47	38	15
% change					+7	-2	-5
$5000-7499	28	26	-2				
1959				100	52	29	19
1965				100	58	31	11
% change					+6	+2	-8
$7500 and over:	29	44	+15				
1959				100	68	17	15
1965				100	71	22	7
% change					+3	+5	-8
Total:	100	100					
1959				100	49	32	19
1965				100	60	29	11
% change					+11	-3	-8

Table 6

Comparison of high school seniors' post-high school plans, Fall 1959 and 1965, by family income, roughly adjusted for changes in income distribution

Adjusted family income			Per cent planning on college
1959[c]	1965[d]		
Under $3000	Under $4000		
		1959	23
		1965	46
% change			+23
$3000-4999	$4000-5999		
		1959	40
		1965	52
% change			+12
$5000-7499	$6000-8499		
		1959	52
		1965	65
% change			+13
$7500 and over	$8500 and over		
		1959	68
		1965	74
% change			+6

Sources for Tables 3 through 6

[a] Source: Unpublished data from a 1939 survey, conducted by Elmo Roper and Associates, Roper Commercial number 15. The 1,148 respondents were a national sample of persons under 20 years of age. Those already in college are excluded from this tabulation. The specific question was: "Do you plan on going to college?" The answers indicating attitudes favorable to attending college were: "Plan on going" and "Hope to go." The totals for all occupations were obtained by weighting the replies for each occupation by the distribution for total U.S., 1940, from 1940 Census of Population, Families: Employment Status, Table 19, Distribution of males aged 35-44 having children under 18 years of age.

[b] Source: Unpublished data derived from a study conducted by the Educational Testing Service in spring 1955, Background Factors Relating to College Plans and College Enrollment Among Public High School Students. The 35,400 respondents were a national sample. The specific questions were: "What is your father's occupation? What does he do...?" and, in relation to college plans, "Think of what you would really like to do when you finish high school..." and "What do you really think you will do when you finish high school?" To the latter two questions, answers favorable to going to college, without expectation of so doing, were one answer category, expectations of attending formed another, and negative answers to both queries formed a third category. The respondents also specified, if they intended to enter college, whether they planned to do this immediately or later, after a period of work. For comparability with the 1939 study above, those foreseeing a delay in entrance were not included in the "plan on going to college" category.

[c] Source: Data derived from a national survey, Educational Status, College Plans, and Occupational Status of Farm and Nonfarm Youths: October 1959, by James C. Cowhig and Charles B. Nam, U.S. Bureau of the Census, Series ERS (P-27), No. 30, August 1961. The study sample was composed of 1,279 high school seniors dwelling in the approximately 35,000 households interviewed in connection with the monthly population sample survey of the Bureau of the Census. The specific question was: "Does.....plan to attend college next fall?"

[d] Source: Data derived from a Census Bureau study, paralleling the one described in c above. The appreciably larger number of households sampled in 1965 yielded 1464 high school seniors for tabulation.

Part III

Characteristics of Students at 2- and 4-Year Colleges

Table 7

Comparison between students enrolled in 2- and 4-year colleges, October 1966--year of high school graduation by college class (1st or 2nd year) and sex (numbers in hundreds)

Type of college, college class, and sex	Total enrolled in college	Year of high school graduation						
		1966	1965	1964	1963	1962	1961 or earlier	Not reported
		No.	No.	No.	No.	No.	No.	No.
4year colleges								
1st year	12,185	8624	1164	534	255	239	1237	134
Male	6,905	4783	653	298	99	144	853	76
Female	5,280	3841	511	236	156	95	384	58
2nd year	10,694	58	4954	3655	631	331	984	81
Male	6,442	38	2765	2131	478	276	693	61
Female	4,252	20	2189	1524	153	55	291	20
2-year colleges								
1st year	6,579	3857	740	365	218	179	1108	112
Male	3,581	2000	332	173	122	119	777	59
Female	2,998	1857	408	192	96	60	331	53
2nd year	3,813	20	1465	1088	376	283	580	--
Male	2,469	20	867	715	296	242	328	--
Female	1,344	--	598	373	80	41	252	--
				Percentages				
4-year colleges								
1st year	100.0	70.8	9.6	4.4	2.1	2.0	10.2	1.1
Male	100.0	69.3	9.5	4.3	1.4	2.1	12.4	1.1
Female	100.0	72.7	9.7	4.5	3.0	1.8	7.3	1.1
2nd year	100.0	0.5	46.3	34.2	5.9	3.1	9.2	0.8
Male	100.0	0.6	42.9	33.1	7.4	4.3	10.8	0.9
Female	100.0	0.5	51.5	35.8	3.6	1.3	6.8	0.5
2-year colleges								
1st year	100.0	58.6	11.2	5.5	3.3	2.7	16.8	1.7
Male	100.0	55.9	9.3	4.8	3.4	3.3	21.7	1.6
Female	100.0	61.9	13.6	6.4	3.2	2.0	11.0	1.7
2nd year	100.0	9.5	38.4	28.6	9.9	7.4	15.2	--
Male	100.0	0.8	35.1	29.0	12.0	9.8	13.3	--
Female	100.0	--	44.5	27.8	6.0	3.1	18.8	--

Source: Unpublished Census data on students enrolled in college, Fall, 1966, for total United States.

Table 8

1966 high school graduates entering and not entering college the following Fall or early Winter - and for those who entered, the type of college entered

Student characteristics	Did not enter college	Entered a 2-year college	Entered a 4-year college	All college entrants	All high school graduates
	%	%	%	%	%
Sex:					
Male	46	58	54	55	50
Female	54	42	46	45	50
Both sexes	100	100	100	100	100
Age, October, 1966:					
18 years or less	75	86	95	92	83
19 years or more	25	14	5	8	17
All ages	100	100	100	100	100
Family income:					
Under $3000	16	5	5	5	11
$3000-3999	9	6	4	5	7
$4000-5999	24	22	13	16	20
$6000-7499	17	11	15	14	15
$7500-9999	18	25	21	22	20
$10,000-14,999	14	23	28	26	20
$15,000 and over	2	8	14	12	7
All incomes	100	100	100	100	100
Under $7500	66	44	37	39	53
$7500 and over	34	56	63	61	47
All incomes	100	100	100	100	100
Under $6000	49	33	22	26	38
$6000 and over	51	67	78	74	62
All incomes	100	100	100	100	100
Occupation, head of household:					
Blue collar	75	56	44	48	62
White collar	25	44	56	52	38
All occupations	100	100	100	100	100

Page 2 of Table 8

Student characteristics	Did not enter college	Entered a 2-year college	Entered a 4-year college	All college entrants	All high school graduates
	%	%	%	%	%
Father's education:					
11 grades or less	60	44	23	30	45
12 grades	27	27	37	34	30
13-15 grades	9	21	14	16	13
16 grades or more	4	8	26	20	12
All levels	100	100	100	100	100
11 grades or less	60	44	23	30	45
12 grades or more	40	56	77	70	55
All levels	100	100	100	100	100
11 grades or less	--	50	50	100	--
12 grades	--	27	73	100	--
13-15 grades	--	43	57	100	--
16 grades or more	--	14	86	100	--
Ability score:					
High	19	29	62	51	35
Medium and low	81	71	38	49	65
All levels	100	100	100	100	100
Average high school mark:					
B- or better	45	39	73	61	53
C+ or poorer	55	61	27	39	47
All marks	100	100	100	100	100
High school curriculum:					
College preparatory	19	56	84	74	45
All other	81	44	16	26	55
All curricula	100	100	100	100	100

Page 3 of Table 8

Student characteristics	Did not enter college	Entered a 2-year college	Entered a 4-year college	All college entrants	All high school graduates
	%	%	%	%	%
College plans as high school senior:					
No college	66	17	8	11	40
2-yr college only	15	25	2	10	12
4-yr college only	11	20	81	60	34
2 + 4 yr college**	8	38	9	19	14
All plans	100	100	100	100	100
No college	87	7	6	13	100
2-year college only	63	33	4	37	100
4-yr college only	17	9	74	83	100
2 + 4-yr college**	34	45	21	66	100
All plans	53	16	31	47	100
No college	--	52	48	100	--
2-yr college only	--	90	10	100	--
4-yr college only	--	11	89	100	--
2 + 4-yr college**	--	68	32	100	--
All plans	--	34	66	100	--
No. of cases*	1,387,696	419,268	805,549	1,224,817	2,612,513

*National sample inflated to national totals, according to known national distributions for the major demographic variables.

** "2 + 4-year college" designates students who intended to enter a junior college initially, and subsequently transfer to a senior one.

Source: Unpublished data from 1967 Census Bureau follow-up of 1965-66 high school seniors.

Table 9

Comparisons between 1960 and 1966 high school graduates who entered 2- and 4-year colleges for selected personal, background, and academic characteristics

Student characteristics	2-year college entrants	4-year college entrants	All college entrants
	%	%	%
Sex:			
1960			
Male	53	55	55
Female	47	45	45
Both sexes	100	100	100
1966			
Male	58	54	55
Female	42	46	45
Both sexes	100	100	100
Family income:			
1960			
Under $6000	40	36	37
$6000 and over	60	64	63
All incomes	100	100	100
1966			
Under $7500	44	37	39
$7500 and over	56	63	61
All incomes	100	100	100
1966			
Under $6000	33	22	26
$6000 and over	67	78	74
All incomes	100	100	100
Occupation, head of household:			
1960			
Blue collar	53	41	44
White collar	47	59	56
All occupations	100	100	100
1966			
Blue collar	56	44	48
White collar	44	56	52
All occupations	100	100	100

Page 2 of Table 9

Student characteristics	2-year college entrants	4-year college entrants	All college entrants
	%	%	%
Ability score:			
1960			
High	43	78	71
Low	57	22	29
All levels	100	100	100
1966			
High	56	79	71
Low	44	21	29
All levels	100	100	100
1960			
High	13	87	100
Low	42	58	100
All levels	22	78	100
1966			
High	27	73	100
Low	52	48	100
All levels	34	66	100
High school curriculum:			
1960			
College preparatory	56	80	75
All other	44	20	25
All curricula	100	100	100
1966			
College preparatory	56	84	74
All other	44	16	26
All curricula	100	100	100
1960			
College preparatory	17	83	100
All other	40	60	100
All curricula	22	78	100
1966			
College preparatory	26	74	100
All other	59	41	100
All curricula	34	66	100

Page 3 of Table 9

Student characteristics	2-year college entrants	4-year college entrants	All college entrants
	%	%	%
College plans as high school senior:			
1960			
Planned to attend college	75	90	87
Did not plan to attend college	25	10	13
All plans	100	100	100
1966			
Planned to attend college	83	92	89
Did not plan to attend college	17	8	11
All plans	100	100	100
1960			
Planned to attend college	19	81	100
Did not plan to attend college	42	58	100
All plans	22	78	100
1966			
Planned to attend college	32	68	100
Did not plan to attend college	52	48	100
All plans	34	66	100

Source: Unpublished data from 1960 and 1967 Census Bureau follow-ups of 1959-60 and 1965-66 high school seniors.

Part IV

College Financing, Fall 1966 and Early 1967 College Entrants

Table 10

College financing of 1965-66 high school seniors entering college immediately in Fall 1966 and early 1967

Proportion of college expenses met by students' families by family income

Income	Over 75%	75% and under	Total
Family income of student, total	54	46	100
Under $5000	41	59	100
$5000 to 9999	47	53	100
$10,000 to $14,999	59	41	100
$15,000 and over	74	26	100

Proportion of college expenses met by students' families by supplementary sources of financing

Non-family sources of financing	Over 75%	75% and under	Total
Loan	25	29	27
Summer earnings	64	63	63
Other savings	28	22	24
Scholarship	14	30	24
Veterans' benefits	-	2	1
Employment during school year	11	34	25
College	5	13	10
Non-college	6	21	15
All further sources	10	9	10
Total	152*	189*	174*
Per cent	39	61	100

*Percentages add to more than 100 because of multiple mentions.

Page 2 of Table 10

College tuition and fees

Family income	Under $250	$250-499	$500-999	$1,000 and over	Total
	%	%	%	%	%
Under $10,000	49	31	11	9	100
$10,000 and over	30	36	13	21	100
Total	41	33	12	14	100

Proportion of expenses met by families of students in private and public colleges

Auspice of college attended and student's residence while attending

Proportion of college expenses met by family*	Public college			Private college		
	Family or relatives*	Dorm, frat house rooming house etc.	All living arrange-ments	Family or relatives*	Dorm, frat house rooming house etc.	All living arrange-ments
	%	%	%	%	%	%
More than 75%	57	62	59	62	64	64
50 to 75%	16	14	15	19	14	15
Some, but less than 50%	27	12	20	19	17	18
None	--	12	6	--	5	3
Total	100	100	100	100	100	100

*Our data indicate that nearly all students who live at home do so at family expense, and do not report this item as part of college costs. The table includes this imputed expenditure.

Page 3 of Table 10

Sources of financing by college tuition level

Non-family sources of financing	College tuition and fees Under $500	 $500 and over	 Total*
	%	%	%
Loan	16	39	23
Summer earnings	65	71	67
Other savings	24	27	25
Scholarship	22	35	25
Veterans' benefits	2	--	1
Employment during school year:	26	22	25
College	8	13	9
Non-college	18	9	16
All further sources	10	8	9
Total	165**	203**	175**

*Proportions citing various sources in this table differ slightly from proportions in the earlier table (where family financing is the independent variable) because of differences in "non-response" for the independent variables. The differences are too slight to affect any of the findings which we report.

**Sources add to more than 100% because of multiple mentions.

Data source: Unpublished data from 1967 Census Bureau, follow-up of 1965-66 high school seniors.

Part V

Coleman Study Data - Non-Financial Variables Associated with Post-High School Plans of 1965-66 High School Seniors.

The principal variables appear in the following order:

a. Extent of post-high school education desired by high school senior

b. Mother's post-high school desires for senior

c. Post-high school advice offered senior by guidance counselor or teacher

d. The senior's high school curriculum

e. The senior's academic and social self-images relative to classmates

f. The senior's expected occupation following completion of education

Table 11

College plans and extent of higher education desired by level of verbal ability, for Fall 1965 high school seniors, total United States

Level of verbal ability and race	All seniors				All college planners				
	No college plans	Plans on going to college	All plans	All plans	Does not desire full college	Desires full college only	Desires grad. or prof. school	All levels of higher education desired	All levels desired
	%	%	%	N	%	%	%	%	N
Very low									
Majority	61	39	100	8,154	60	29	11	100	3,148
Minority	37	63	100	5,694	51	33	16	100	3,587
Total	51	49	100	13,848	55	31	14	100	6,735
Low to average									
Majority	43	57	100	40,294	41	43	16	100	22,969
Minority	28	72	100	4,650	35	38	27	100	3,371
Total	41	59	100	44,944	40	43	17	100	26,340
Above average									
Majority	18	82	100	40,187	15	48	37	100	33,002
Minority	17	83	100	1,157	14	40	46	100	953
Total	18	82	100	41,344	15	48	37	100	33,955
All levels									
Majority (observed)	33	67	100	88,635	28	45	27	100	59,119
Minority (observed)	31	69	100	11,501	40	36	24	100	7,911
Minority (expected)*	49	51	100	11,501	47	37	16	100	7,911
Total (observed)	33	67	100	100,136	29	44	27	100	67,030

*The "expected" presents the minority's plans and desires as if they accorded with those of the majority with respect to levels of verbal ability.

Source: Our own tabulations of the Coleman Study 12th grade data.

General note: Since the Coleman Study oversampled minority seniors in order to secure sufficient cases for detailed analysis, in this table we necessarily adjusted the two racial distributions so as to represent the actual proportions of the relevant age groups nationally.

Table 12

College plans and extent of higher education desired by level of verbal ability, for Fall 1965 high school seniors, total United States

Level verbal ability	Does not plan on going to college			Plans on going to college												All high school seniors		
				Does not desire full college			Desires full college only			Desires graduate or professional school			All levels higher education desired					
	Major-ity	Minor-ity	Total	Major-ity	Minor ity	Total	Major-ity	Minor-ity	Total	Major-ity	Minor-ity	Total	Major-ity	Minor-ity	Total	Major-ity	Minor-ity	Total
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Very low	17	59	22	12	59	19	4	41	7	2	30	5	5	45	10	9	50	14
Low to average	59	36	56	58	37	55	37	46	38	23	47	25	39	43	39	46	40	45
Above average	24	5	22	30	4	26	59	13	55	75	23	70	56	12	51	45	10	41
All levels	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
All levels (N)	29,516	3,590	33,106	16,318	3149	19,467	26,686	2848	29,534	16,115	1914	18,029	59,119	7911	67,030	88,635	11,501	100,136

Source: Our own tabulations of the Coleman Study 12th grade data.

General note: Since the Coleman Study oversampled minority seniors in order to secure sufficient cases for detailed analysis, in this table we necessarily adjusted the two racial distributions, so as to represent the actual proportions of the relevant age groups nationally.

Table 13
Majority seniors

Mother's post-high school desires for senior, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Desires college for senior																
No college	3	7	12	15	7	9	16	24	25	18	16	28	34	39	31	13
College probably	13	21	29	35	21	26	35	40	36	35	30	42	44	42	41	27
College definitely	84	72	59	50	72	65	49	36	39	47	54	30	22	19	28	60
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	6141	11,388	2942	1635	22,106	2383	7164	3252	2492	15,291	216	772	553	538	2079	39,476
% cases	10.6	19.6	5.1	2.8	38.1	4.1	12.3	5.6	4.3	26.3	0.4	1.3	1.0	0.9	3.6	68.0
Does not desire college for senior																
No college	49	62	70	71	65	59	67	76	77	72	65	78	82	82	80	72
College probably	25	21	19	18	20	24	23	18	17	20	21	17	14	14	15	19
College definitely	26	17	11	11	15	17	10	6	6	8	14	5	4	4	5	9
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	312	2136	1353	816	4617	456	4338	3627	2588	11,009	90	888	992	1011	2981	18,607
% cases	0.5	3.7	2.3	1.4	7.9	0.8	7.5	6.2	4.5	19.0	0.2	1.5	1.7	1.7	5.1	32.0
% for whom college is not desired	5	16	32	33	17	16	38	53	51	42	29	53	64	65	59	32

Source: Our own tabulations of the Coleman Study 12th grade data

Page 2 of Table 13

Minority seniors

Mother's post high school desires for senior, verbal ability of senior, and highest grade completed by senior's mother

Desires college for senior

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	4	7	10	12	8	7	11	15	19	13	12	15	19	24	19	15
College probably	16	24	35	30	25	25	37	41	44	39	36	44	48	49	47	40
College definitely	80	69	55	58	67	68	52	44	37	48	52	41	33	27	34	45
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	637	867	499	360	2363	1140	2462	2399	1928	7929	595	1711	2636	2749	7691	17,983
% cases	2.3	3.2	1.8	1.3	8.6	4.2	9.0	8.7	7.0	28.9	2.2	6.2	9.6	10.0	28.0	65.5
Does not desire college for senior																
No college	54	55	51	63	56	44	52	55	58	55	47	50	55	61	57	56
College probably	25	26	34	25	28	34	30	29	30	30	29	35	33	31	32	31
College definitely	21	19	15	12	16	22	18	16	12	15	24	15	12	8	11	13
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	24	132	115	111	382	163	854	1166	1186	3369	127	944	2012	2650	5737	9488
% cases	0.1	0.5	0.4	0.4	1.4	0.6	3.1	4.2	4.3	12.2	0.5	3.4	7.3	9.7	20.9	34.5
% for whom college is not desired	4	13	19	24	14	13	26	33	38	30	18	36	43	49	43	35

Source: Our own tabulations of the Coleman Study 12th grade data.

4

29 —

Table 14
Majority Males

Mother's post-highschool desires for senior, and guidance advice offered to senior by counselor or teacher

Mother's educational attainment (grades completed)	Senior's verbal ability	College			No college			All desires		
		College	No college	All advice	College	No college	All advice	College	No college	All advice
		%	%	%	%	%	%	%	%	%
8-	Very low	44	56	100	13	87	100	26	74	100
9-11	Very low	44	56	100	15	85	100	30	70	100
12	Very low	45	55	100	13	87	100	31	69	100
13+	Very low	54	46	100	18	82	100	46	54	100
All levels	Very low	45	55	100	14	86	100	31	69	100
No. cases	Very low	585	703	1288	155	949	1104	730	1652	2392
8-	Low to average	55	45	100	19	81	100	40	60	100
9-11	Low to average	58	42	100	17	83	100	43	57	100
12	Low to average	63	37	100	17	83	100	52	48	100
13+	Low to average	69	31	100	22	78	100	64	36	100
All levels	Low to average	62	38	100	18	82	100	49	51	100
No. cases	Low to average	5359	3273	8632	613	2820	3433	5972	6093	12,065
8-	Above average	76	24	100	26	74	100	65	35	100
9-11	Above average	80	20	100	27	73	100	71	29	100
12	Above average	83	17	100	29	71	100	79	21	100
13+	Above average	86	14	100	33	67	100	85	15	100
All levels	Above average	83	17	100	28	72	100	78	22	100
No. cases	Above average	10,019	2096	12,115	327	831	1158	10,346	2927	13,273
8-	All levels	62	38	100	19	81	100	46	54	100
9-11	All levels	66	34	100	19	81	100	51	49	100
12	All levels	73	27	100	19	81	100	64	36	100
13+	All levels	80	20	100	24	76	100	77	23	100
All levels	All levels	72	28	100	19	81	100	62	38	100
No. cases	All levels	15,963	6072	22,035	1095	4600	5695	17,058	10,672	27,730
% cases		58	21	79	4	17	21	62	38	100

Source: Our own tabulations of the Coleman Study 12th grade data.

Page 2 of Table 14

Minority females

Mother's post-high school desires for senior, and guidance advice offered to senior by counselor or teacher

Mother's educational attainment (grades completed)	Senior's verbal ability	College			No college			All desires		
		College	No college	All advice	College	No college	All advice	College	No college	All advice
		%	%	%	%	%	%	%	%	%
8-	Very low	53	47	100	28	72	100	39	61	100
9-11	Very low	54	46	100	26	74	100	40	60	100
12	Very low	54	46	100	23	77	100	40	60	100
13+	Very low	60	40	100	25	75	100	52	48	100
All levels	Very low	54	46	100	26	74	100	40	60	100
No. cases	Very low	1745	1463	3208	855	2436	3291	2600	3899	6499
8-	Low to average	63	37	100	31	69	100	47	53	100
9-11	Low to average	67	33	100	29	71	100	51	49	100
12	Low to average	70	30	100	27	73	100	55	45	100
13+	Low to average	71	29	100	34	66	100	65	35	100
All levels	Low to average	68	32	100	29	71	100	53	47	100
No. cases	Low to average	2524	1198	3722	670	1616	2286	3194	2814	6008
8-	Above average	82	18	100	41	59	100	63	37	100
9-11	Above average	82	18	100	35	65	100	71	29	100
12	Above average	80	20	100	40	60	100	72	28	100
13+	Above average	84	16	100	26	74	100	81	19	100
All levels	Above average	81	19	100	38	62	100	73	27	100
No. cases	Above average	893	205	1098	103	170	273	996	375	1371
8-	All levels	59	41	100	30	70	100	43	57	100
9-11	All levels	63	37	100	27	73	100	47	53	100
12	All levels	66	34	100	26	74	100	52	48	100
13+	All levels	72	38	100	30	70	100	65	35	100
All levels	All levels	64	36	100	28	72	100	49	51	100
No. cases	All levels	5162	2866	8028	1628	4222	5850	6790	7088	13,878
% cases		37	21	58	12	30	42	49	51	100

Source: Our own tabulations of the Coleman Study 12th grade data.

Table 15

High school seniors attending schools characterized by the existence of, and access to a guidance counselor

	Counselor available							
Student race and sex groups	Student has consulted with counselor		Student has not consulted with counselor		No counselor available		Total	
	No.	%	No.	%	No.	%	No.	%
Majority male	26,589	85	3,450	11	1,152	4	31,191	100
Majority female	27,038	87	3,164	10	893	3	31,095	100
Minority male	9,809	75	2,064	16	1,260	9	13,133	100
Minority female	12,008	78	2,002	13	1,409	9	15,419	100

Source: Our own tabulations of the Coleman Study 12th grade data

Majority boys

Table 16

Post-high school advice of guidance counselor or teacher, verbal ability of senior, and highest grade completed by senior's mother

Advised to enter college

Post-high school plans of senior	Above average ability						Low to average ability						Very low ability						Total
	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	14	11	6	3	3	7	27	20	12	7	7	15	46	32	27	11	17	31	11
College probably	33	30	21	15	14	21	39	39	33	25	24	34	39	39	39	39	23	38	26
College definitely	53	59	73	82	83	72	34	41	55	68	69	51	15	29	34	50	60	31	63
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	725	1480	5624	1317	1574	10,720	756	1373	3143	471	501	6244	159	228	315	38	53	793	17,757
% cases	2.5	5.1	19.3	4.5	5.4	36.8	2.6	4.7	10.8	1.6	1.7	21.4	0.5	0.8	1.1	0.1	0.2	2.7	60.9
Not advised to enter college																			
No college	54	53	37	20	19	39	65	62	52	34	32	56	71	70	62	37	36	65	53
College probably	26	27	31	30	25	29	26	28	32	37	36	30	22	24	27	37	38	25	29
College definitely	20	20	32	50	56	32	9	10	16	29	32	14	7	6	11	26	26	10	18
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	395	625	1555	281	236	3092	1119	1852	2973	297	247	6488	421	532	695	46	50	1744	11,324
% cases	1.4	2.2	5.3	0.9	0.8	10.6	3.9	6.4	10.2	1.0	0.9	22.4	1.5	1.8	2.4	0.2	0.2	6.1	39.1
% not advised to enter college	35	30	22	18	13	22	60	57	49	39	33	51	73	70	69	55	49	69	39

Source: Our own tabulations of the Coleman Study 12th grade data

Page 2 of Table 16

Minority boys

Post-high school advice of guidance counselor or teacher, verbal ability of senior, and highest grade completed by the senior's mother

Post-high school plans of senior	Advised to enter college																		
	Above average ability						Low to average ability						Very low ability						Total
	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	15	12	9	4	4	9	19	12	11	9	6	13	28	28	22	17	16	22	16
College probably	30	38	26	23	14	27	45	46	38	24	25	40	23	46	46	47	42	45	40
College definitely	55	50	65	73	82	64	36	42	51	67	69	47	49	26	32	36	42	33	44
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	152	205	413	122	142	1034	547	856	908	224	188	2723	653	934	613	81	129	2410	6167
% cases	1.4	1.9	3.7	1.1	1.4	9.5	4.9	7.7	8.2	2.0	1.7	24.5	5.9	8.4	5.5	0.7	1.2	21.7	55.7
	Not advised to enter college																		
No college	55	41	34	23	28	38	53	44	39	30	30	43	53	50	39	35	33	48	45
College probably	25	38	34	34	23	32	33	38	39	49	31	37	36	38	39	42	26	37	37
College definitely	20	21	32	43	49	30	14	18	22	21	39	20	11	12	22	23	41	15	18
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	76	76	140	35	39	366	466	607	649	89	104	1915	837	1021	645	72	58	2633	4914
% cases	0.7	0.7	1.3	0.3	0.4	3.4	4.2	5.5	5.9	0.8	0.9	17.3	7.5	9.2	5.8	0.6	0.5	23.6	44.3
% not advised to enter college	33	27	25	22	21	26	46	41	42	28	36	41	56	52	51	47	31	52	44

Source: Our own tabulations of the Coleman Study 12th grade data

Page 3 of Table 16

Majority girls

Post-high school advice of guidance counselor or teacher, verbal ability of senior, and highest grade completed by the senior's mother

	Advised to enter college																		
	Above average ability						Low to average ability						Very low ability						Total
Post-high school plans of senior	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	21	18	9	4	2	10	33	28	16	7	5	19	51	43	29	24	19	38	13
College probably	28	25	18	12	8	17	36	32	26	22	17	28	29	38	36	24	8	33	21
College definitely	51	57	73	84	90	73	31	40	58	71	78	53	20	19	35	52	73	29	66
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	646	1448	4993	1374	1361	9822	544	1125	2299	493	370	4831	95	159	135	25	26	440	15,093
% cases	2.2	4.9	16.9	4.7	4.6	33.3	1.8	3.8	7.8	1.7	1.2	16.3	0.3	0.5	0.4	0.1	0.1	1.4	51.0
	Not advised to enter college																		
No college	66	67	52	30	25	54	74	71	61	47	39	66	80	77	71	45	51	75	64
College probably	20	19	23	25	21	22	19	21	25	28	31	23	16	18	22	39	27	19	22
College definitely	14	14	25	45	54	24	7	8	14	25	30	11	4	5	7	16	22	6	14
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	467	996	1880	285	203	3831	1600	3005	3585	357	207	8754	523	744	606	44	37	1954	14,539
% cases	1.6	3.4	6.3	1.0	0.7	13.0	5.3	10.1	12.1	1.2	0.7	29.4	1.8	2.5	2.0	0.2	0.1	6.6	49.0
% not advised to enter college	42	41	27	17	13	39	75	73	61	42	36	64	85	82	82	64	59	82	49

Source: Our own tabulations of the Coleman Study 12th grade data

Page 4 of Table 16

Minority girls

Post-high school advice of guidance counselor or teacher, verbal ability of senior, and highest grade completed by the senior's mother

Advised to enter college

	Above average ability						Low to average ability						Very low ability						Total
Post-high school plans of senior	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	8 or less	9-11	12	13-15	16 or more	All levels	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	14	8	8	2	3	7	20	14	9	5	1	12	27	20	12	10	7	20	14
College probably	30	29	18	17	5	20	37	34	30	22	15	31	43	42	36	34	23	40	33
College definitely	56	63	74	81	92	73	43	52	61	73	84	57	30	38	52	56	70	40	53
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	133	254	360	136	147	1030	657	1125	1018	247	222	3269	838	1113	562	91	101	2705	7004
% cases	1.0	1.9	2.7	1.0	1.1	7.7	4.8	8.3	7.5	1.8	1.6	24.0	6.2	8.2	4.1	0.7	0.7	19.9	51.6
Not advised to enter college																			
No college	51	46	35	26	21	39	54	49	41	24	30	46	56	48	41	31	27	48	47
College probably	26	34	28	28	21	29	34	32	34	38	28	33	34	38	39	33	28	37	35
College definitely	23	20	37	46	58	32	12	19	25	38	42	21	10	14	20	36	45	15	18
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	78	94	130	35	29	366	726	980	754	139	91	2690	1171	1457	743	76	62	3509	6565
% cases	0.6	0.7	1.0	0.3	0.2	2.8	6.1	7.2	5.6	1.0	0.7	20.6	8.6	10.8	5.5	0.6	0.5	26.0	49.4
% not advised to enter college	37	27	27	26	16	26	53	47	43	36	29	45	58	57	57	46	38	56	48

Source: Our own tabulations of the Coleman Study 12th grade data

Table 17

Verbal ability of senior and highest grade completed by the senior's mother

Teacher or guidance advice	Very low ability					Low to average ability					Above average ability				
	8 or less	9-11	12	13-15	16 or more	8 or less	9-11	12	13-15	16 or more	8 or less	9-11	12	13-15	16 or more
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Majority females															
No college	85	82	81	63	59	75	73	61	42	36	42	41	27	17	13
College	15	18	19	37	41	25	27	39	58	64	58	59	73	83	87
All advice	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	625	908	747	70	63	2145	4148	5893	850	578	1120	2452	6890	1659	1567
% cases	2.1	3.1	2.5	0.2	0.2	7.2	14.0	19.8	2.9	1.9	3.8	8.3	23.1	5.6	5.3
Majority males															
No college	73	70	69	55	48	60	57	49	39	33	35	30	22	17	13
College	27	30	31	45	52	40	43	51	61	67	65	70	78	83	87
All advice	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	583	763	1014	84	105	1876	3231	6134	772	750	1122	2106	7185	1602	1811
% cases	2.0	2.6	3.5	0.3	0.4	6.4	11.1	21.0	2.6	2.6	3.9	7.2	24.7	5.5	6.2
Minority females															
No college	58	57	57	46	39	52	47	43	36	29	37	27	27	20	16
College	42	43	43	54	61	48	53	57	64	71	63	73	73	80	84
All advice	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	2012	2586	1310	167	167	1391	2117	1785	389	313	211	348	492	171	180
% cases	14.8	19.0	9.6	1.2	1.2	10.2	15.4	13.1	2.9	2.3	1.5	2.6	3.6	1.3	1.3
Minority males															
No college	56	52	51	47	31	46	42	42	28	36	33	27	25	22	21
College	44	48	49	53	69	54	58	58	72	64	67	73	75	78	79
All advice	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1501	1963	1264	154	189	1017	1468	1563	313	296	228	283	556	157	181
% cases	13.5	17.6	11.4	1.4	1.7	9.1	13.3	14.0	2.8	2.7	2.0	2.5	5.0	1.4	1.6

Source: Our own tabulations of the Coleman Study 12th grade data.

Table 18
Majority males

Verbal ability of senior and mother's educational attainment

Mother's post-high school desires for senior	Very low ability				Low to average ability				Above average ability				All levels			
	11-	12	13+	All levels	11-	12	13+	All levels	11-	12	13+	All levels	11-	12	13+	All levels
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	52	42	21	45	37	28	11	30	17	7	2	8	33	19	5	21
College	48	58	79	55	63	72	89	70	83	93	98	92	67	81	95	79
All desires	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1212	951	190	2353	4696	6096	1461	12,253	2994	6900	3309	13,203	8902	13,947	4960	27,809
% cases	4.4	3.4	0.7	8.5	16.9	21.9	5.3	44.1	10.8	24.8	11.9	47.5	32.0	50.2	17.8	100
Guidance advice offered senior																
No college	71	69	51	69	58	49	36	52	32	22	15	22	51	37	23	39
College	29	31	49	31	42	51	64	48	68	78	85	78	49	63	77	61
All advice	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1342	1014	189	2545	5111	6134	1522	12,767	3229	7192	3414	13,835	9682	14,340	5125	29,147
% cases	4.6	3.5	0.6	8.7	17.5	21.0	5.2	43.8	11.1	24.7	11.7	47.5	33.2	49.2	17.6	100.0

General note: Totals and subtotals differ slightly for the two tabulations because of differing numbers of N.A.'s for guidance advice and mother's desires. For both variables, N.A.'s tend to represent the same senior, and consequently do not affect the findings materially.

Source: Our own tabulations of the Coleman study 12th grade data.

Table 19

Proportion of 1965-1966 high school seniors planning on college by high school curriculum				Proportion of 1965-1966 high school graduates entering college, as of February 1967, by high school curriculum	
Coleman data		Census data		Census data	
College preparatory	Other programs	College preparatory	Other programs	College preparatory	Other programs
90	46	90	47	78	22

Ratio college entrants to college planners* by high school curriculum

Census data	
College preparatory	Other programs
.87	.47

*This is not precisely a measure of proportions of college planners who in fact entered college, since a small proportion of the entrants (about one in nine) had been non-planners.

Majority seniors

Table 20

Senior's high school curriculum, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
								College preparatory curriculum								
No college	3	6	11	11	6	4	9	15	15	10	8	17	19	19	16	8
College probably	11	19	26	28	19	22	29	35	36	30	25	39	40	48	39	22
College definitely	86	75	63	61	75	74	62	50	49	60	67	44	41	33	45	70
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	5594	10,392	2594	1598	20,178	1572	4173	1597	1030	8372	89	191	118	112	510	29,060
% cases	9.0	16.7	4.2	2.6	32.5	2.5	6.7	2.6	1.7	13.5	0.1	0.3	0.2	0.2	0.8	46.8
								General and other curricula								
No college	24	45	58	59	48	34	52	63	65	57	39	61	68	70	65	56
College probably	28	29	25	26	27	32	29	26	25	28	32	26	24	23	25	27
College definitely	48	26	17	15	25	34	19	11	10	15	29	13	8	7	10	17
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1079	3766	1988	1379	8212	1408	7958	5830	4557	19,753	248	1601	1534	1670	5053	33,018
% cases	1.7	6.1	3.2	2.2	13.2	2.3	12.8	9.4	7.3	31.8	0.4	2.6	2.5	2.7	8.2	53.2
% in general and other curricula	16	27	43	46	29	47	66	78	82	70	74	89	93	94	91	53

Source: Our own tabulations of the Coleman Study 12th grade data.

Page 2 of Table 20

Minority seniors — Senior's high school curriculum, verbal ability of senior, and highest grade completed by senior's mother

	Above average ability					Low to average ability					Very low ability					All abilities
Post-high school plans of senior	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
College preparatory curriculum																
No college	4	7	8	12	7	3	8	10	13	9	6	8	14	19	14	10
College probably	14	22	34	30	23	20	32	37	40	33	25	35	39	44	38	32
College definitely	82	71	58	58	70	77	60	53	47	58	69	57	47	37	48	58
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	557	775	407	325	2064	735	1382	1234	890	4241	203	512	680	693	2088	8393
% cases	1.9	2.6	1.4	1.1	7.0	2.5	4.7	4.2	3.0	14.4	0.7	1.8	2.3	2.4	7.2	28.6
General and other curricula																
No college	19	36	37	48	38	24	33	38	44	38	25	33	39	47	41	40
College probably	28	31	36	24	30	33	36	37	37	37	38	41	41	38	40	38
College definitely	53	33	27	28	32	43	31	25	19	25	37	26	20	15	19	22
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	144	297	245	302	988	625	2099	2490	2654	7868	534	2265	4119	5212	12,134	20,990
% cases	0.5	1.0	0.8	1.0	3.3	2.1	7.2	8.5	9.0	26.8	1.8	7.7	14.0	17.8	41.3	71.4
% in general & other curricula	21	28	38	48	32	46	60	67	75	65	72	81	86	88	85	71

Source: Our own tabulations of the Coleman Study 12th grade data

Table 21

Majority seniors

	Mothers with 11 grades or less schooling; seniors with very low verbal ability						Mothers with 12 grades schooling; seniors with very low verbal ability					
	Senior's estimate of own brightness relative to classmates						Senior's estimate of own brightness relative to classmates					
High school curriculum	Below average	Average	Above average	Among brightest	Don't know	All estimates	Below average	Average	Above average	Among brightest	Don't know	All estimates
	%	%	%	%	%	%	%	%	%	%	%	%
College prep.	3	6	12	15	6	7	4	9	18	19	18	11
General	37	33	28	30	32	33	42	34	24	30	23	33
All other	60	61	60	55	62	60	54	57	58	51	59	56
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	424	2451	429	107	161	3572	205	1188	269	69	74	1805
% cases	12	68	12	3	5	100	11	66	15	4	4	100
	Mothers with 11 grades or less schooling; seniors with low to average verbal ability						Mothers with 12 grades schooling; seniors with low to average verbal ability					
College prep.	11	15	35	30	17	20	15	27	50	50	27	34
General	43	31	22	25	33	29	40	27	18	18	29	25
All other	46	54	43	45	50	51	45	46	32	32	44	41
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	699	8660	3143	500	271	13,273	568	7338	3528	543	217	12,194
% cases	5	65	24	4	2	100	5	60	29	4	2	100
	Mothers with 11 grades or less schooling; seniors with above average verbal ability						Mothers with 12 grades schooling; seniors with above average verbal ability					
College prep.	28	38	62	76	55	55	51	55	77	88	70	74
General	38	27	15	10	18	19	25	21	10	6	15	12
All other	34	35	23	14	27	26	24	24	13	6	15	14
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	110	2564	3742	1163	126	7705	135	3438	7730	2703	193	14,199
% cases	1	33	49	15	2	100	1	24	55	19	1	100
	Mothers with 11 grades or less schooling; seniors at all verbal ability levels						Mothers with 12 grades schooling; seniors at all verbal ability levels					
College prep.	9	18	48	59	22	29	18	34	67	80	43	52
General	41	31	18	16	29	26	38	26	13	9	22	19
All other	50	51	34	25	49	45	44	40	20	11	35	29
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1233	13,675	7314	1770	558	24,550	908	11,964	11,527	3315	484	28,198
% cases	5	56	30	7	2	100	3	42	41	12	2	100

Source: Our own tabulations of the Coleman Study 12th grade data

Page 2 of Table 21

Majority seniors

High school curriculum	Below average	Average	Above average	Among brightest	Don't know	All estimates	Below average	Average	Above average	Among brightest	Don't know	All estimates
	Mothers with 13 grades or more schooling; seniors with very low verbal ability						Mothers at all levels of schooling; seniors with very low verbal ability					
	Senior's estimate of own brightness relative to classmates						Senior's estimate of own brightness relative to classmates					
	%	%	%	%	%	%	%	%	%	%	%	%
College prep.	23	23	31	47	9	26	4	8	16	21	10	9
General	19	22	23	15	30	22	38	33	26	28	29	32
All other	58	55	46	38	61	52	58	59	58	51	61	59
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	26	179	77	34	23	339	655	3818	775	210	258	5716
% cases	8	52	23	10	7	100	11	67	14	4	4	100
	Mothers with 13 grades or more schooling; seniors with low to average verbal ability						Mothers at all levels of schooling; seniors with low to average verbal ability					
College prep.	28	43	65	66	40	53	14	23	46	44	23	30
General	40	26	15	14	22	21	42	29	19	20	30	26
All other	32	31	20	20	38	26	44	48	35	36	47	44
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No cases	124	1444	1171	187	63	2989	1391	17,442	7842	1230	551	28,456
% cases	4	49	39	6	2	100	5	61	28	4	2	100
	Mothers with 13 grades or more schooling; seniors with above average verbal ability						Mothers at all levels of schooling; seniors with above average verbal ability					
College prep.	59	65	85	92	79	84	44	50	75	87	68	71
General	30	21	9	6	15	10	31	23	11	7	16	14
All other	11	14	6	2	6	6	25	27	14	6	16	15
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	54	989	3438	2102	100	6683	299	6991	14,910	5968	419	28,587
% cases	8	15	51	31	15	100	1	25	52	21	1	100
	Mothers with 13 grades or more schooling; seniors at all verbal ability levels						Mothers at all levels of schooling; seniors at all verbal ability levels					
College prep.	36	50	79	90	57	72	15	27	64	78	36	47
General	35	24	11	6	19	14	39	28	14	10	25	21
All other	29	26	10	4	24	14	46	45	22	12	39	32
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	204	2612	4686	2323	186	10,011	2345	28,251	23,527	7408	1228	62,759
% cases	2	26	47	23	2	100	4	45	37	12	2	100

Source: Our own tabulations of the Coleman Study 12th grade data

Page 3 of Table 21

Minority seniors

High school curriculum	Mothers with 11 grades or less schooling; seniors with very low verbal ability						Mothers with 12 grades schooling; seniors with very low verbal ability					
	Senior's estimate of own brightness relative to classmates						Senior's estimate of own brightness relative to classmates					
	Below average	Average	Above average	Among brightest	Don't know	All estimates	Below average	Average	Above average	Among brightest	Don't know	All estimates
	%	%	%	%	%	%	%	%	%	%	%	%
College prep.	8	11	17	21	10	13	8	15	25	26	16	18
General	32	27	23	22	24	26	34	26	24	22	25	25
All other	60	62	60	57	66	61	58	59	51	52	59	57
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	654	5946	2233	1061	1157	11,053	131	1465	671	273	281	2821
% cases	6	54	20	10	10	100	5	51	24	10	10	100
	Mothers with 11 grades or less schooling; seniors with low to average verbal ability						Mothers with 12 grades schooling; seniors with low to average verbal ability					
College prep.	11	24	38	38	24	29	28	34	45	51	37	40
General	40	30	24	28	29	28	27	23	19	25	33	23
All others	49	46	38	34	47	43	45	43	36	24	30	37
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	246	3809	2084	951	409	7499	86	1736	1080	431	180	3513
% cases	3	51	28	13	5	100	2	50	31	12	5	100
	Mothers with 11 grades or less schooling; seniors with above average verbal ability						Mothers with 12 grades schooling; seniors with above average verbal ability					
College prep.	23	47	64	63	51	57	38	60	78	77	66	72
General	30	24	17	17	21	20	24	20	12	11	17	14
All others	47	29	19	20	28	23	38	20	10	12	17	14
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	47	367	526	320	47	1307	21	267	513	241	36	1078
% cases	4	28	40	24	4	100	2	25	48	22	3	100
	Mothers with 11 grades or less schooling; seniors at all verbal ability levels						Mothers with 12 grades schooling; seniors at all verbal ability levels					
College prep.	10	17	31	34	15	22	18	28	47	50	27	36
General	34	28	23	24	25	26	31	24	19	20	27	23
All others	56	55	46	42	60	52	51	48	34	30	46	41
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	947	10,124	4843	2332	1613	19,859	238	3468	2264	945	497	7412
% cases	5	51	24	12	8	100	3	46	31	13	7	100

Source: Our own tabulations of the Coleman Study 12th grade data

Page 4 of Table 21

Minority Seniors

High school curriculum	Mothers with 13 grades or more schooling; seniors with very low verbal ability Senior's estimate of own brightness relative to classmates Below average						Mothers at all levels of schooling; seniors with very low verbal ability Senior's estimate of own brightness relative to classmates Below average					
	Below average	Average	Above average	Among brightest	Don't know	All estimates	Below average	Average	Above average	Among brightest	Don't know	All estimates
	%	%	%	%	%	%	%	%	%	%	%	%
College prep.	13	22	36	24	38	27	8	12	20	22	13	15
General	27	23	18	27	22	23	32	27	23	23	24	25
All other	60	55	46	49	40	50	60	61	57	55	63	60
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	30	363	192	84	88	757	815	7776	3096	1418	1526	14,631
% cases	4	48	25	11	12	100	6	53	21	10	10	100
	Mothers with 13 grades or more schooling; seniors with low to average verbal ability						Mothers at all levels of schooling; seniors with low to average verbal ability					
College prep.	29	49	62	55	39	54	17	29	44	44	29	35
General	20	21	13	24	28	19	35	27	21	27	30	26
All other	51	30	25	21	33	27	48	44	35	29	41	39
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	35	550	499	223	67	1374	367	6095	2663	1605	656	12,386
% cases	3	40	36	16	5	100	3	49	30	13	5	100
	Mothers with 13 grades or more schooling; seniors with above average verbal ability						Mothers at all levels of schooling; seniors with above average verbal ability					
College prep.	40	70	81	84	85	80	29	55	73	73	61	67
General	20	13	11	5	--	9	27	21	14	12	17	16
All other	40	17	8	11	15	11	44	24	13	15	22	17
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	10	122	330	231	13	706	78	756	1369	792	96	3091
% cases	1	17	47	33	2	100	3	24	44	26	3	100
	Mothers with 13 grades or more schooling; seniors at all verbal ability levels						Mothers at all levels of schooling; seniors at all verbal ability levels					
College prep.	24	42	63	63	42	53	12	21	40	42	19	28
General	23	21	13	16	23	17	33	27	20	22	26	25
All other	53	37	24	21	35	30	55	52	40	36	55	47
All curricula	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	75	1035	1021	538	168	2837	1260	14,627	8128	3815	2278	30,108
% cases	3	36	36	19	6	100	4	48	27	13	8	100

Source: Our own tabulations of the Coleman Study 12th grade data

Table 22

Curriculum of high school senior by level of verbal ability and estimate of own brightness relative to classmates

	Majority Seniors					
	Senior's estimate of relative brightness					
Senior's verbal ability and high school curriculum	Total	Very low	Low to Average	Above average	Among brightest	Don't know
Low ability						
No. reporting	5,716	655	3,818	775	210	258
Total	100	100	100	100	100	100
College prep.	9	4	8	16	21	10
General	32	38	33	26	28	29
Other courses	59	58	59	58	51	61
Medium ability						
No. reporting	28,456	1,391	17,442	7,842	1,230	551
Total	100	100	100	100	100	100
College prep.	30	14	23	46	44	23
General	26	42	29	19	20	30
Other courses	44	44	48	35	36	47
High ability						
No. reporting	28,587	299	6,991	14,910	5,968	419
Total	100	100	100	100	100	100
College prep.	71	44	50	75	87	68
General	14	31	23	11	7	16
Other courses	15	25	27	14	6	16
All ability levels						
No. reporting	62,759	2,345	28,251	23,527	7,408	1,228
Total	100	100	100	100	100	100
College prep.	47	15	27	64	78	36
General	21	39	28	14	10	25
Other courses	32	46	45	22	12	39

Source: Our own tabulations of the Coleman Study 12th grade data

Page 2 of Table 22

Curriculum of high school senior by level of verbal ability and estimate of own brightness relative to classmates

		Minority Seniors				
		Senior's estimate of relative brightness				
Senior's verbal ability and high school curriculum	Total	Very low	Low to Average	Above average	Among brightest	Don't know
Low ability						
No. reporting	14,631	815	7,776	3,096	1,418	1,526
Total	100	100	100	100	100	100
College prep.	15	8	12	20	22	13
General	25	32	27	23	23	24
Other courses	60	60	61	57	55	63
Medium ability						
No. reporting	12,386	367	6,095	3,663	1,605	656
Total	100	100	100	100	100	100
College prep.	35	17	29	44	44	29
General	26	35	27	21	27	30
Other courses	39	48	44	35	29	41
High ability						
No. reporting	3,091	78	756	1,369	792	96
Total	100	100	100	100	100	100
College prep.	67	29	55	73	73	61
General	16	27	21	14	12	17
Other courses	17	44	24	13	15	22
All ability levels						
No. reporting	30,108	1,260	14,627	8,128	3,815	2,278
Total	100	100	100	100	100	100
College prep.	28	12	21	40	42	19
General	25	33	27	20	22	26
Other courses	47	55	52	40	36	55

Source: Our own tabulations of the Coleman Study 12th grade data

Table 23

Curriculum of high school senior by mother's educational attainment and estimate of own brightness relative to classmates

Majority Seniors

Mother's education and high school curriculum	Senior's estimate of relative brightness					
	Total	Below average	Average	Above average	Among brightness	Don't know
Under 12 grades						
No. reporting	24,550	1,233	13,675	7,314	1,770	558
Total	100	100	100	100	100	100
College prep.	29	9	18	48	59	22
General	26	41	31	18	16	29
Other courses	45	50	51	34	25	49
12 grades						
No. reporting	28,198	908	11,964	11,527	3,315	484
Total	100	100	100	100	100	100
College prep.	52	18	34	67	80	43
General	19	38	26	13	9	22
Other courses	29	44	40	20	11	35
13 grades or more						
No. reporting	10,011	204	2,612	4,686	2,323	186
Total	100	100	100	100	100	100
College prep.	72	36	50	79	90	57
General	14	35	24	11	6	19
Other courses	14	29	26	10	4	24
All educational levels						
No. reporting	62,759	2,345	28,251	23,527	7,408	1,228
Total	100	100	100	100	100	100
College prep.	47	15	27	64	78	36
General	21	39	28	14	10	25
Other courses	32	46	45	22	12	39

Source: Our own tabulations of the Coleman Study 12th grade data

APPENDIX D

Page 2 of Table 23

Curriculum of high school senior by mother's educational attainment and estimate of own brightness relative to classmates

Minority Seniors

Senior's estimate of relative brightness

Mother's education and high school curriculum	Total	Below average	Average	Above average	Among brightest	Don't know
Under 12 grades						
No. reporting	19,859	947	10,124	4,843	2,332	1,613
Total	100	100	100	100	100	100
College prep.	22	10	17	31	34	15
General	26	34	28	23	24	25
Other courses	52	56	55	46	42	60
12 grades						
No. reporting	7,412	238	3,468	2,264	945	497
Total	100	100	100	100	100	100
College prep.	36	18	28	47	50	27
General	23	31	24	19	20	27
Other courses	41	51	48	34	30	46
13 grades or more						
No. reporting	2,837	75	1,035	1,021	538	168
Total	100	100	100	100	100	100
College prep.	53	24	42	63	63	42
General	17	23	21	13	16	23
Other courses	30	53	37	24	21	35
All educational levels						
No. reporting	30,108	1,260	14,627	8,128	3,815	2,278
Total	100	100	100	100	100	100
College prep.	28	12	21	40	42	19
General	25	33	27	20	22	26
Other courses	47	55	52	40	36	55

Source: Our own tabulations of the Coleman Study 12th grade data.

Majority seniors

Table 24

Senior's estimate of own brightness relative to classmates, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	Estimated brightness above average															
No college	4	12	24	24	13	12	24	39	39	28	25	40	50	50	44	18
College probably	11	18	25	27	18	19	26	30	32	27	29	32	29	31	30	21
College definitely	85	70	51	49	69	69	50	31	29	45	56	28	21	19	26	61
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	5535	10,431	2975	1859	20,809	1363	4076	2134	1468	9041	102	341	262	259	974	30,824
% cases	9.0	17.0	4.9	3.0	33.9	2.2	6.7	3.5	2.4	14.8	0.2	0.5	0.4	0.4	1.5	50.2
	Estimated brightness average or below															
No college	16	29	45	48	34	24	44	58	63	50	34	60	68	71	65	47
College probably	29	31	28	27	29	32	31	27	25	29	33	27	24	23	25	28
College definitely	55	40	27	25	37	44	25	15	12	21	33	13	8	6	10	25
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1045	3568	1567	1062	7242	1572	7929	5248	4052	18,801	207	1411	1402	1485	4505	30,548
% cases	1.7	5.8	2.6	1.7	11.8	2.6	13.0	8.5	6.6	30.7	0.3	2.3	2.3	2.4	7.3	49.8
% whose estimated brightness is average or below	16	25	35	36	26	54	66	71	69	68	67	81	84	85	82	50

Source: Our own tabulations of the Coleman Study 12th grade data.

Page 2 of Table 24

Minority seniors

Senior's estimate of own brightness relative to classmates, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	Estimated brightness above average															
No college	6	10	14	22	12	10	15	18	24	17	13	21	25	34	27	20
College probably	14	24	33	25	23	21	31	35	38	33	24	39	42	41	39	34
College definitely	80	66	53	53	65	69	54	47	38	50	63	40	33	25	34	46
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	560	752	437	397	2146	724	1517	1582	1383	5206	352	958	1564	1778	4652	12,004
% cases	2.0	2.7	1.5	1.4	7.6	2.6	5.4	5.6	4.9	18.5	1.3	3.4	5.6	6.3	16.6	42.7
	Estimated brightness average or below															
No college	12	28	30	44	29	16	29	36	45	35	22	33	42	49	42	39
College probably	22	28	36	30	29	32	38	38	38	38	38	41	40	38	39	37
College definitely	66	44	34	26	42	52	33	26	17	27	40	26	18	13	19	24
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	173	288	195	215	871	587	1831	1978	2061	6457	399	1634	2981	3780	8794	16,122
% cases	0.6	1.0	0.7	0.8	3.1	2.1	6.5	7.0	7.3	22.9	1.4	5.8	10.6	13.5	31.3	57.3
% whose estimated brightness is average or below	24	28	31	35	29	45	55	56	66	55	53	63	66	68	65	57

Source: Our own tabulations of the Coleman Study 12th grade data.

Table 25

Majority seniors

Senior's estimate of own social rating in class, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability: 13 or more	12	9-11	8 or less & don't know	All grades	Low to average ability: 13 or more	12	9-11	8 or less & don't know	All grades	Very low ability: 13 or more	12	9-11	8 or less & don't know	All grades	All abilities
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Estimated social rating at or near top of class																
No college	4	11	22	27	13	14	29	43	43	33	24	45	54	62	50	23
College probably	11	19	26	26	18	25	29	30	32	29	24	32	31	30	31	24
College definitely	85	70	52	47	69	61	42	27	25	38	52	23	15	8	19	53
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	4390	8364	2321	1380	16,455	1704	6459	3446	2128	13,737	176	769	657	562	2164	32,356
% cases	7.3	13.8	3.8	2.3	27.2	2.8	10.7	5.7	3.5	22.7	0.3	1.3	1.1	0.9	3.6	53.5
Estimated social rating about middle or below middle of class																
No college	10	24	40	39	27	29	48	58	64	53	40	64	73	72	68	44
College probably	20	26	27	28	25	32	30	30	24	29	40	25	20	21	23	27
College definitely	70	50	33	33	48	39	22	12	12	18	20	11	7	7	9	29
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	2028	5398	2073	1486	10,985	1060	5452	4165	3241	13,918	141	978	1004	1151	3274	28,177
% cases	3.3	8.9	3.4	2.5	18.1	1.8	9.0	6.9	5.3	23.0	0.2	1.6	1.7	1.9	5.4	46.5
% estimated rating about middle or below middle	32	39	47	52	40	38	46	55	60	50	44	56	60	67	60	47

Source: Our own tabulations of the Coleman Study 12th grade data.

Page 2 of Table 25

Minority seniors

Senior's estimate of own social rating in class, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
						Estimated social rating at or near top of class										
No college	5	10	12	20	10	8	17	21	29	20	15	24	28	36	30	23
College probably	14	23	34	26	24	24	33	38	38	35	33	40	44	42	41	37
College definitely	81	67	54	54	66	68	50	41	33	45	52	36	28	22	29	40
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	482	639	385	296	1802	903	2070	2157	1814	6944	449	1566	2622	2922	7559	16,305
% cases	1.7	2.3	1.4	1.1	6.5	3.2	7.4	7.7	6.5	24.8	1.6	5.6	9.4	10.5	27.1	58.4
						Estimated social rating about middle or below middle of class										
No college	15	25	29	40	28	22	33	40	45	38	28	36	46	52	46	41
College probably	21	26	36	26	27	30	37	35	37	36	34	40	38	35	37	36
College definitely	64	49	35	34	45	48	30	25	18	26	38	24	16	13	17	23
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	193	378	242	307	1120	399	1245	1408	1612	4664	238	1024	1927	2634	5823	11,607
% cases	0.7	1.3	0.9	1.1	4.0	1.4	4.5	5.0	5.8	16.7	0.9	3.7	6.9	9.4	20.9	41.6
% estimated rating about middle or below middle	28	37	39	51	38	31	38	39	47	40	35	40	42	47	44	42

Source: Our own tabulations of the Coleman Study 12th grade data.

Table 26

Majority male

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Professional

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	2	3	6	19	4	5	7	11	15	8	15	15	15	28	18	6
College probably	11	17	27	23	17	20	28	36	34	29	20	41	40	37	36	21
College definitely	87	80	67	58	79	75	65	53	51	63	65	44	45	35	46	73
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	2196	3983	952	780	7911	514	1578	610	460	3162	45	106	65	63	279	11,352
% cases	7.4	13.5	3.2	2.7	26.8	1.7	5.3	2.1	1.6	10.7	0.1	0.4	0.2	0.2	0.9	38.4
% expect professional jobs	69	56	46	47	57	36	27	20	17	24	26	12	9	8	11	38
Technical, official,managerial, farm owner																
No college	9	15	26	26	17	16	25	35	43	30	26	42	44	57	46	26
College probably	19	29	30	35	28	27	37	38	35	35	39	37	36	33	36	33
College definitely	72	56	44	39	55	57	38	27	22	35	35	21	20	10	18	41
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	540	1275	419	298	2532	437	1549	734	652	3372	57	276	163	208	704	6608
% cases	1.8	4.3	1.4	1.0	8.5	1.5	5.2	2.5	2.2	11.4	0.2	0.9	0.5	0.7	2.4	22.3
% expect technical, official, managerial, farm owner	17	18	20	18	18	31	27	24	24	26	33	30	24	25	27	22

Page 2 of Table 26

Majority male

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Skilled and semi-skilled, clerical, sales																
No college	28	47	61	65	51	39	53	62	66	58	25	65	67	67	65	57
College probably	35	31	25	24	29	37	31	27	26	29	42	25	27	25	26	29
College definitely	37	22	14	11	20	24	16	11	8	13	33	10	6	8	9	14
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	192	836	354	288	1670	242	1628	1125	911	3906	36	325	266	286	913	6489
% cases	0.6	2.8	1.2	1.0	5.6	0.8	5.5	3.8	3.1	13.2	0.1	1.1	0.9	1.0	3.1	21.9
% expect skilled & semi-skilled, clerical, sales jobs	6	12	17	17	12	17	28	36	34	30	21	36	39	35	35	22
Farm and non-farm labor																
No college	43	53	82	82	67	31	78	81	72	75	25	71	79	74	72	73
College probably	-	26	12	9	16	31	16	16	16	16	63	23	12	20	21	18
College definitely	57	21	6	9	17	38	6	3	12	9	12	6	9	6	7	9
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	7	34	17	23	81	16	99	96	97	308	8	48	42	51	149	538
% cases	-	0.1	0.1	0.1	0.3	0.1	0.3	0.3	0.3	1.0	-	0.2	0.1	0.2	0.5	1.8
% expect farm and non-farm labor jobs	-	1	1	1	1	1	2	3	4	2	5	5	6	6	6	2

Page 3 of Table 26

Majority male

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Don't know Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	15	19	32	40	24	15	39	49	55	43	37	53	68	67	62	38
College probably	42	36	37	36	37	42	37	36	31	36	37	30	26	28	28	35
College definitely	43	45	31	24	39	43	24	15	14	21	26	17	6	5	10	27
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	262	927	315	264	1768	220	970	532	544	2266	27	159	154	207	547	4581
% cases	0.9	3.1	1.1	0.9	6.0	0.8	3.3	1.8	1.8	7.7	0.1	0.5	0.5	0.7	1.8	15.5
% don't know about jobs	8	13	15	16	13	15	17	17	20	17	16	17	22	25	21	15

Source: Our own tabulations of the Coleman Study 12th grade data

Majority female

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Professional																
No college	3	8	15	13	8	8	18	30	33	21	16	41	50	49	43	13
College probably	9	16	23	25	16	18	25	30	31	26	32	28	26	28	28	19
College definitely	89	76	62	62	76	74	57	40	36	53	52	31	24	23	29	68
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	2350	4239	1203	643	8435	659	1962	951	545	4117	31	103	111	78	323	12,875
% cases	7.8	14.2	4.0	2.1	28.2	2.2	6.5	3.2	1.8	13.7	0.1	0.3	0.4	0.3	1.1	43.0
% expect professional jobs	74	62	50	48	61	48	34	24	21	30	25	15	13	10	13	43
Technical, official, managerial, farm owner																
No college	12	28	41	53	29	15	41	55	53	44	39	60	53	72	59	40
College probably	14	21	26	28	21	31	28	26	28	28	26	32	31	17	27	25
College definitely	74	51	33	19	50	54	31	19	19	28	35	8	16	11	14	35
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	207	546	175	103	1031	134	598	329	203	1264	31	87	101	78	297	2592
% cases	0.7	1.8	0.6	0.3	3.4	0.4	2.0	1.1	0.7	4.2	0.1	0.3	0.3	0.3	1.0	8.7
% expect technical, official, managerial, farm owner jobs	7	8	7	8	8	10	10	8	8	9	25	12	12	10	12	9

Page 5 of Table 26

Majority female

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
						Skilled and semi-skilled, clerical, sales										
No college	38	59	72	71	62	43	64	70	74	67	50	66	75	73	71	66
College probably	24	23	18	19	21	26	24	22	19	23	24	24	21	20	22	22
College definitely	38	18	10	10	17	31	12	8	7	10	26	10	4	7	7	12
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	223	1159	706	375	2463	318	2105	1858	1201	5482	34	290	335	312	971	8916
% cases	0.7	3.9	2.4	1.3	8.2	1.1	7.0	6.2	4.0	18.3	0.1	1.0	1.1	1.0	3.2	29.8
% expect skilled & semi-skilled, clerical, sales jobs	7	17	29	28	18	23	37	46	46	40	27	42	40	40	40	30
						Farm and non-farm labor										
No college	100	33	50	67	50	0	55	64	94	70	0	100	83	91	89	71
College probably	0	0	0	33	7	0	36	29	6	21	0	0	17	9	11	16
College definitely	0	67	50	0	43	100	9	7	0	9	0	0	0	0	0	13
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1	6	4	3	14	2	11	14	16	43	0	2	6	11	19	76
% cases	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	-	0.1	0.2
% expect farm and non-farm labor jobs	-	-	-	-	-	-	-	-	0.1	-	-	-	1.0	1.0	1.0	-

Page 6 of Table 26

Majority female

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Don't know

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
No college	10	28	48	52	31	30	52	70	72	61	47	74	79	81	77	54
College probably	21	30	28	30	28	30	28	21	21	24	23	18	17	16	17	24
College definitely	69	42	24	18	41	40	20	9	7	15	30	8	4	3	6	22
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	403	840	315	228	1786	264	1051	884	663	2862	30	216	292	309	847	5495
% cases	1.3	2.8	1.1	0.8	6.0	0.9	3.5	3.0	2.2	9.6	0.1	0.7	1.0	1.0	2.8	18.3
% don't know about jobs	13	12	13	17	13	19	18	22	25	21	24	31	35	39	34	18

Source: Our own tabulations of the Coleman Study 12th grade data.

Page 7 of Table 26

Minority male

Senior's expected occupation following completion of education, verbal ability of senior,

and highest grade completed by senior's mother

Professional

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All Abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	2	5	5	9	5	4	8	7	10	8	8	11	15	17	14	9
College probably	15	22	36	25	23	24	31	41	43	35	22	43	42	52	43	34
College definitely	83	73	59	66	72	72	61	52	47	57	70	46	43	31	43	57
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	204	271	129	138	742	241	485	414	352	1492	84	175	236	226	721	2955
% cases	1.8	2.4	1.2	1.2	6.6	2.2	4.3	3.7	3.2	13.4	0.8	1.6	2.1	2.0	6.5	26.5
% expect professional jobs	65	52	48	41	51	45	34	31	25	31	31	17	15	11	14	27
	Technical, official, managerial, farm owner															
No college	14	15	18	22	17	12	19	22	29	22	13	21	31	37	30	26
College probably	34	35	46	25	35	31	42	45	40	41	45	44	44	42	43	41
College definitely	52	50	36	53	48	57	39	33	31	37	42	35	25	21	27	33
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	50	104	66	51	271	140	343	305	288	1076	67	307	457	527	1358	2705
% cases	0.4	0.9	0.6	0.5	2.4	1.3	3.1	2.7	2.6	9.7	0.6	2.7	4.1	4.7	12.2	24.3
% expect technical, official, managerial, farm owner jobs	16	20	25	15	19	26	24	23	20	23	25	30	28	25	27	24

Page 8 of Table 26

Minority males

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Skilled and semi-skilled, clerical and sales

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	41	28	39	55	40	35	39	37	48	41	33	34	45	47	43	42
College probably	27	40	47	34	38	34	43	45	39	42	43	46	42	40	42	42
College definitely	32	32	14	11	22	31	18	18	13	17	24	20	13	13	15	16
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	22	79	36	67	204	89	400	420	473	1382	81	379	578	741	1779	3365
% cases	0.2	0.7	0.3	0.6	1.8	0.8	3.6	3.8	4.2	12.4	0.7	3.4	5.2	6.7	16.0	30.2
% expect skilled and semi-skilled, clerical and sales jobs	7	15	14	20	14	17	28	32	33	29	30	37	36	36	35	30
Farm and non-farm labor																
No college	22	50	75	76	60	67	38	53	64	54	50	55	64	61	60	59
College probably	22	12	25	5	12	0	27	42	28	29	0	21	22	26	23	23
College definitely	56	38	0	19	28	33	35	5	8	17	50	24	14	13	17	18
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	9	8	4	21	42	6	26	19	39	90	8	29	59	89	185	317
% cases	0.1	0.1	0.0	0.2	0.4	0.1	0.2	0.2	0.3	0.8	0.1	0.3	0.5	0.8	1.7	2.8
% expect farm and non-farm labor jobs	3	2	2	6	3	1	2	1	3	2	3	3	4	4	4	3

Page 9 of Table 26

Minority males

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Don't know

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	17	36	49	44	38	20	28	44	43	38	24	44	42	49	45	42
College probably	20	28	35	35	31	39	45	39	39	40	52	37	41	39	40	39
College definitely	63	36	16	21	31	41	27	17	18	22	24	19	17	12	15	19
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	30	62	31	63	186	54	158	172	261	645	33	148	288	504	973	1804
% cases	0.3	0.6	0.3	0.5	1.7	0.5	1.4	1.6	2.3	5.8	0.3	1.3	2.6	4.5	8.7	16.2
% don't know about jobs	10	12	12	19	13	10	11	13	18	14	12	14	18	24	19	16

Source: Our own tabulations of the Coleman Study 12th grade data.

Page 10 of Table 26

Minority females

Senior's expected occupation following completion of education, Verbal ability of senior, and highest grade completed by senior's mother

Professional

	Above average ability					Low to average ability					Very low ability					All abilities
Post-high school plans of senior	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	2	5	8	8	5	5	9	12	16	11	5	12	16	23	17	11
College probably	10	16	31	24	19	16	27	31	34	28	13	34	41	39	36	29
College definitely	88	79	61	68	76	79	64	57	50	61	82	54	43	38	47	60
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	261	316	232	125	934	413	826	831	583	2653	110	308	510	462	1390	4977
% cases	1.9	2.3	1.7	0.9	6.8	3.0	6.0	6.1	4.3	19.4	0.8	2.3	3.7	3.4	10.2	36.4
% expect professional jobs	77	67	68	50	67	63	50	42	33	44	37	27	23	18	22	36
Technical, official, managerial, farm owner																
No college	12	29	18	33	24	15	25	29	35	28	22	28	33	38	34	31
College probably	12	25	28	34	25	34	35	22	39	35	22	35	41	43	40	37
College definitely	76	46	54	33	51	51	40	39	26	37	56	37	26	19	26	32
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	26	52	39	30	147	71	196	243	186	696	49	197	378	444	1068	1911
% cases	0.2	0.4	0.3	0.2	1.1	0.5	1.4	1.8	1.4	5.1	0.4	1.4	2.8	3.2	7.8	14.0
% expect technical, official, managerial, farm owner jobs	8	11	11	12	10	11	12	12	11	12	17	17	17	17	17	14

Page 11 of Table 26

Minority females

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Skilled and semi-skilled, clerical and sales

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	43	44	71	64	57	25	39	48	48	44	27	34	41	50	42	44
College probably	19	30	18	23	23	34	36	34	38	36	41	41	38	38	39	37
College definitely	38	26	11	13	20	41	25	18	14	20	32	25	21	12	19	19
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	21	54	44	44	163	113	448	626	585	1772	69	365	632	715	1781	3716
% cases	0.2	0.4	0.3	0.3	1.2	0.8	3.3	4.6	4.3	13.0	0.5	2.7	4.6	5.2	13.0	27.2
% expect skilled & semi-skilled, clerical, sales jobs	6	11	13	18	12	17	27	32	33	29	23	32	29	27	29	27

Farm and non-farm labor

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
No college	0	0	0	63	50	60	75	67	100	76	0	20	36	39	34	48
College probably	0	100	0	0	10	0	0	0	0	0	0	40	21	39	32	20
College definitely	100	0	0	37	40	40	25	33	0	24	100	40	43	22	34	32
All plans	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	1	1	0	8	10	5	4	3	5	17	1	5	14	18	38	65
% cases	-	-	-	0.1	0.1	-	-	-	-	0.1	-	-	0.1	0.1	0.3	0.5
% expect farm and non-farm labor jobs	-	-	-	3	1	1	-	-	-	-	-	-	1	1	1	1

Page 12 of Table 26

Minority females

Senior's expected occupation following completion of education, verbal ability of senior, and highest grade completed by senior's mother

Don't know

Post-high school plans of senior	Above average ability					Low to average ability					Very low ability					All abilities
	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	13 or more	12	9-11	8 or less & don't know	All grades	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No college	19	34	26	51	34	19	37	51	51	46	26	37	48	54	49	48
College probably	29	23	56	26	32	43	39	34	39	38	40	44	39	35	38	37
College definitely	52	43	18	23	34	38	24	15	10	16	34	19	13	11	13	15
All plans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
No. cases	31	47	27	43	148	53	173	277	389	892	65	251	663	977	1956	2996
% cases	0.2	0.3	0.2	0.3	1.1	0.4	1.3	2.0	2.8	6.5	0.5	1.8	4.9	7.1	14.3	21.9
% don't know about jobs	9	10	8	17	11	8	11	14	22	15	22	22	30	37	31	22

Source: Our own tabulations of the Coleman Study 12th grade data.

APPENDIX D

Appendix D

Methodology

In this appendix we shall first describe the data we used for our historical analysis of long-term educational trends, as well as the manner in which we organized the data. We shall also discuss our reasons for using the particular data we selected, rather than other available historical series.

We shall then briefly describe the data we used for shorter-term trends, chiefly opinion surveys from the late 1930s on, plus recent Census Bureau surveys of college plans and attendance of high school seniors. Since the methodology used for these data represent simple cross-tabulations of variables, we shall not discuss it at length.

Finally, we shall describe the Coleman study data, briefly covering the steps necessary to prepare the relevant computer tapes for use, and the nature of the tabulations and analysis.

Apart from these three areas, we simply turned to existing data for supplementary information, and refer the reader to the original sources for the methodology employed.

The Long Term Historical Data

The United States Censuses of Population in 1940, 1950 and 1960 reported--among other things--the age, sex, and years of schooling of everyone in the country. This has allowed us to infer past trends in schooling. For example, if a 60-year-old man reported at the time of the 1960 Census that he had completed 12 years of school, or was a high school graduate, we know that he finished high school at about the time of World War I. Persons who reported having completed less than 12 years of schooling we consider not to be high school graduates; those who report 13 or more years of schooling are judged to have entered college; and those who reported 16 years or more are judged to have completed four years of college, and to be college graduates.

Hence, we can calculate for each age, race, and sex group the proportion who graduated from high school, the proportion of the high school graduates who entered college, and the proportion of those who entered college who subsequently completed four years. Admittedly these Census data are not perfect. If used judiciously, however, we feel that they are far more informative and accurate than are the early United States Office of Education and Census of Population statistics.

We used statistics from both the 1960 and 1940 population censuses mainly in order to cover a longer time period. The population aged 75 and over in 1940 was of high school graduation age approximately 60 years earlier, or about 1875. The younger persons, those who graduated from high school after 1940, could be studied only through the 1960 census data.

In addition, we could compare findings for an age cohort in 1940 with findings twenty years later in 1960 for the same group to determine the extent of differences stemming from differences in enumeration procedures--and also, perhaps, differential mortality by race and class for older groups.

We believe the early Office of Education and Census of Population statistics to be of little use for two reasons. (In both instances they were collected, in the early years, from schools or local educational officials.):

One is that they were collected in a very haphazard manner; some schools reported and others failed to do so. It is believed that not until the 1950s was Office of Education information collected from virtually 100 per cent of the schools. The other is that the organization of the American school system has changed radically over the last century. In early periods the Office of Education and Census Bureau could not always properly classify schools, since elementary sometimes merged into high school. What we now consider as private high schools merged into private colleges. And colleges did not always distinguish carefully between those of their students who were taking post-high school studies and those who were preparing for college work in sub-collegiate departments of the colleges.

The early Office of Education and Census statistics are simply the summation of the reports of individual institutions. Thus, the handicaps of nonreporting and over-reporting and imprecise classification of schools makes it very difficult to reconstruct historical trends in college attendance on the basis of these data. (See Frederick Rudolph, The American College and University, A. A. Knopf, New York, 1962; Edwin C. Broome, A Historical and Critical Discussion of College Admissions Requirements, Macmillan, 1903, reprinted by College Board, 1964. See especially James H. Blodgett's Report on Education in the United States at the Eleventh Census: 1890, U. S. Government Printing Office, 1893. Blodgett recounts the principal reasons for over- and under-reporting in the 1890 and earlier Decennial Censuses, plus various lacunae in the data collected.)

To extend the analysis to more recent years, we simply applied the techniques described above to Census Bureau Current Population Survey data. We should note that these data represent far fewer cases than in the Decennial Censuses, and that long-term trends, rather than minor fluctuations, represent the only statistically reliable findings. In the Current Population Table (Appendix C) we present the overall picture down the years, the proportions at each level of schooling from primary to college graduation.

The Shorter-Term Historical Data

Public opinion surveys commenced asking questions about college plans, addressed to parents and children, around the late 1930s--or so we discovered through a search of the files at the Roper Public Opinion Center at Williams College, Williamstown, Mass. From the Center we obtained decks of IBM cards from a 1939 Roper survey and a 1955 Educational Testing Service survey which asked these questions, and moreover included data on occupation of the head of the household. We simply ran our own cross-tabulations of plans by occupation for the two surveys. The 1959 Census Bureau survey of high school seniors made parallel tabulations, reported in Census Series-ERS (P-27), No.30. Finally, we obtained IBM cards for the 1965 Census Bureau survey of high school seniors, and cross-tabulated plans by occupation of head ourselves. The footnotes to Tables 3 through 6 in Statistical Appendix C detail the samples and questions for the four surveys.

For the two most recent Census surveys family income data were obtained, and the analysis could be extended to include this socioeconomic item, as well as a number of other items, such as age and sex of senior, academic variables, etc.

Both of the Census surveys were followed-up the academic year following high school graduation. Census Series ERS (P-27), No. 32 presented many tabulations for the 1960 follow-up, and we supplemented these with special tabulations on 2- and 4-year college entrants, prepared for us by the Census Bureau. We ourselves ran IBM card tabulations of the February 1967 follow-up of 1965-66 seniors to obtain data parallel to that for the 1960 follow-up.

For all of the surveys discussed, questions were quite similar, but not identical, samples varied in size and criteria for selection, etc. We view small percentage differences with suspicion, and once again place confidence only in strong trends. The two Census surveys and follow-ups are the most comparable of those discussed, both in sampling, enumeration procedures, questions asked, etc.

The Office of Education "Coleman Study" Data

The Office of Education's 1965 Equality of Educational Opportunity survey collected questionnaire and test data from about 94,000 12th grade students, representing a national sample of high school seniors. One hundred sixteen questions were asked each senior, and each senior underwent a battery of tests (verbal ability, mathematical ability, general information, reading comprehension, etc.). One of the questions related to the senior's post-high school plans ("no college," "college probably," "college definitely"); another related to his educational aspirations ("no further schooling," "technical or business training," "some college," "four years of college," "graduate or professional school"). These two dependent variables, then, if cross-tabulated with the multitude of independent variables relating to the student's personal, family, academic and attitudinal characteristics, would afford an excellent secondary analysis of the data, focused upon the determinants of college planning in the mid 1960s.

We obtained six computer tapes containing the 12th grade data, and then proceeded to edit the tapes to achieve the following objectives:

1. A new set of tapes which would fit the format requirements of the Columbia University Computer Center system.

2. Four instead of six tapes--each of the four tapes representing a sex-race sub-sample (majority and minority boys and girls) we intended to tabulate and analyze separately.

3. Data items extraneous to the analysis were removed.

Richard Meyers, an experienced IBM-trained programmer, successfully produced the four specified tapes, each of which contained sixty-four selected items of information per case. For both minority tapes there were roughly 15,000 cases, and for both majority ones about 30,000--affording ample numbers for multi-variate cross-tabulations.

The data items dispensed with were rejcted upon the following bases:

1. Obvious irrelevance to the area of concern.

2. Lack of relationship to the dependent variables, as evidenced by published findings in the Coleman report, as well as the detailed

correlation matrices separately published for that study.

Once the four tapes were operative, we further reduced the number of relevant independent variables for analysis as follows:

1. We ran simple correlations of all variables, and eliminated those which had little or no relationship to the dependent variables.

2. We grouped the remaining variables according to the major dimensions they represented, and selected for further tabulations (within each major dimension) 48 variables most strongly associated with the dependent variables, plus a few variables not so strongly associated, but which appeared to be of particular interest (e.g., amount of reading aloud in childhood, an indicator of the impact of early experience, as well as of the enduring nature of the educational tradition in the home).

Our final list of variables for detailed cross tabulation with post-high school plans and desires consisted of the following items:

1. Mother's educational attainment
2. Verbal ability
3. Estimated brightness relative to classmates
4. High school curriculum
5. Number of high school science courses
6. Number of high school language courses
7. Number of high school English courses
8. Desire of mother for senior to excel academically
9. Mother's post-high school aspirations for senior
10. Teacher's desire for senior to excel academically
11. High school guidance advice following graduation
12. High school guidance availability
13. Had senior written to a college

14. Reactions if had to quit school
15. Extent of desire to be a good student
16. Time devoted to studying
17. Time intentionally absent from school
18. Extent of reading
19. Use of public library
20. Family reading aloud in childhood
21. Encyclopedia in home
22. Dictionary in home
23. Number of books in home
24. Older siblings or not who were high school dropouts
25. Estimated social rating in class
26. Number of siblings
27. Number of older siblings
28 Acting Father's relationship to senior
29. Father's occupation
30. Senior's age
31. Family geographic mobility
32. Type of community--rural, suburb, city, etc.
33. Region of residence
34. School changes, schoor career
35. Color of schoolmates, school career
36. Color of teachers, school career
37. Color choice for classmates
38. Color choice for teachers
39. Color of friends
40. Color choice for friends
41. Should accept life conditions or not
42. Whether luck accounts for success
43. Whether obstacles always turn up to preclude success
44. Whether would sacrifice much for success
45. Satisfaction with self
46. Ability to do well
47. Would a good education lead to a good job
48. Desired occupation

Race and sex, of course, are omitted, since they are accounted for by the four separate computer tapes.

For these 48 variables, plus the two dependent variables, we then obtained simple marginals to determine how to group response categories, and then ran 46 six-variable cross-tabulations as follows:

Dependent variable - Post-high school plans

Control variables - Verbal ability
Mother's education
Race
Sex

Independent variables - Each of the 46 independent variables in turn on a separate tabulation

It will be noticed that at first we considered post-high school aspirations as an independent variable. On later tabulations we treated it as a dependent one, in combination with plans, to form a "plans-aspirations" index.

The 46 six-variable cross-tabs represented the basic analytic data. However, as significant relationships between various of the independent and the dependent variables emerged, we ran further tabs to ascertain relationships between the independent variables. For example, we attempted to determine the association between guidance advice offered the senior and mother's aspirations for the senior--between the senior's academic self-image and guidance advice--between guidance advice and high school curriculum; and between three or more of these variables at once.

We did not attempt further correlation analysis for the following reasons:

1. We had already obtained about three feet of computer output, and did not have the resources or time to obtain or analyze further data.

2. Analysis of the cross-tabulations permitted grouping of the independent variables into a small number of significant dimensions which could be easily studied by means of the cross-tabs. Many independent variables could virtually stand for each other, and one of these could be selected out for intensive study--not only in terms of strength of relationships, but also in terms of the pattern of relationships, and the numbers of cases involved, for various sub-tables of a cross-tab.

3. It emerged from the cross-tabs that variables representing the significant dimensions associated with post-high school plans had roughly equal independent relationships to plans, and ranking the variables seemed less meaningful than tracing the complex patterns of association. Moreover, we distrusted correlation ranking, given the variety of kinds of variables--more or less parametric, more or less linear, unimodal or bimodal, etc.

A few words on our choice of verbal ability and mother's education as control variables. The test literature accorded with our own tabulation findings that, of the ability measures available to us, the verbal variable was most closely related to academic aspiration. Moreover, verbal SAT is of primary interest to college admissions personnel.

We tested mother's education, father's education, and father's occupation for their relationship to college plans, and found parallel relationships of near equal magnitudes. We selected mother's education because most minority students could answer this question, but many of this race group did not know their father's educational attainment.

In this report we discuss selected findings--those where relationships are strongest; those that clearly delineate major problems, as well as problems amenable to change by educational policies and programs; and those that have been least investigated elsewhere. A comprehensive report on the vast amount of data is precluded simply by lack of time and resources.

Nevertheless, the reader may well ask why we do not report at all on many of the 48 independent variables.

First, as we have observed, many of the independent variables can stand for each other, such as "luck and success" and "accepting life conditions." We simply focused on the variable of greatest intrinsic interest to educational planners. It is difficult to change pessimism per se, but an unfavorable social self-image relative to classmates presumably may be changed by grouping students differently.

Second, many variables, though they predict post-high school plans well, do so for so few students that they are of little interest. For example, the student in a home without a dictionary is highly unlikely to plan on college, but there are very few such homes.

Finally, some of the variables are so intricately intertwined that we could not determine findings with any confidence. The color choice and color association questions are a case in point. These questions interested us considerably, but no clear-cut conclusions emerged when we controlled simultaneously for region, ability, parental education, race, and sex.

It became clear that the largest possible unit of geographical analysis would have to be the state, and we would further need variables characterizing schools, level of ability of classmates, etc. We will only observe in passing that the tabulations suggest that racial integration in schools, however desirable it may be on other grounds, may well operate adversely on the aspiration levels of deprived minorities, particularly the girls. Given the clear findings that relative academic self-image is strongly related to aspiration level, it would not seem strange if generally less able minority youth, in association with generally more able majority youth, should curtail their hopes and plans. Indeed, one major finding is that minority and majority students aspire and plan within, rather than across, racial boundaries. That so many minority students plan on college would logically seem to stem, at least in part, from de facto racial segregation.

Our data, however, cannot confirm such inferences, but merely raise the questions.

These then, were our general procedures which led to the findings we report in this summary. Much is left unsaid, but it is our belief that the findings of paramount significance are all included.